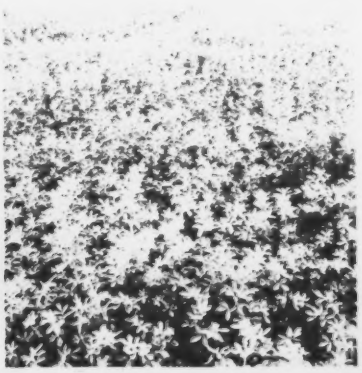
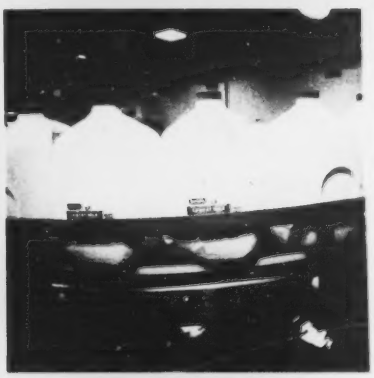
1991 Utah Agricultural Statistics

Utah Department Of Agriculture Annual Report

Enterprise Budgets





STATE OF UTAH

OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114

NORMAN H. BANGERTER
GOVERNOR

Dear Fellow Utahn:

Agriculture is the basic industry of our state, which makes this report on the status of Utah's agricultural industry an important document in itself. As always, our farmers and ranchers are doing a splendid job against many odds to produce the food, feed and fiber that are so essential to all of us.

During the past year, I've appointed a state agribusiness advisory task force to come up with ideas for boosting the value of Utah's agricultural products and increasing jobs and income in rural Utah. This group is hard at work exploring not only possibilities for new food products but even for new farm products not now being produced in the state.

Our legislature has provided seed money for a value-added program to help Utah food processors do more with our farm products. This cuts transportation costs and lowers prices in the retail food store while keeping jobs in the state. In the past, we've shipped those products out-of-state for further processing and marketing, thus losing jobs and revenue to other states.

In a number of areas affecting agriculture, we are seeing the federal government attempt to usurp states' rights -- for instance, in water rights, wetlands, and other land use issues. We are fighting off those attempts vigorously; our Founding Fathers knew that the best government is that closest to the people. We pledge to all citizens of Utah that we'll continue to defend this state's right to control and manage our resources.

At the same time, we'll work for continued application of the multiple-use concept on public lands. This concept can lead to good relations between sportsmen, foresters, mining companies, ranchers and other users of public land, which makes up nearly 80 percent of Utah's total area.

All Utah citizens can be proud of the quality the food we produce here. To promote this quality, we have embarked on a "Product of Utah" campaign during the past year. A number of businesses have taken advantage of our cooperative advertising offer to use the logo for this new program on their products and advertising.

Several Utah food processors recently took part in an international food trade show in Las Vegas, where they visited with nearly one thousand buyers from foreign nations, mostly Pacific Rim countries. Such contacts set up by Utah Department of Agriculture staff members and other state officials have already led to new sales to overseas buyers, with more to come.

As many of you know, I grew up on a farm. I've milked cows in the freezing cold and had my face scrubbed by a cow's tail. I know the sacrifice it takes to be a full-time food producer. And so I say, hats off to the farmers and ranchers of our state. They are doing a magnificent job. Every time the rest of us sit down to a full plate at mealtime, we should be thankful that we live in a land of freedom, where we can choose the kind of work we want to do, and that there are a few thousand Utahns who choose to produce our food and do it so well!

Sincerely,

Norman H. Bangerter

Norman H. Bangerter
Governor

Introduction

This publication is designed to help inform farmers, ranchers, and the public, about activities within the Utah Department of Agriculture, and provide a detailed look at Utah's agricultural production. Also included are budgets for helping farmers and ranchers evaluate the profitability of various agricultural commodities produced in the State.

The Utah Agricultural Statistics Service, and the Utah Department of Agriculture, have jointly prepared this publication for the past 21 years. Estimates presented in the publication are current for 1990 production, and January 1, 1991 inventories. Data users that need 1991 information, or more historic data, should contact the Utah Agricultural Statistics Service, (phone (801-524-5003). Statistics for other States are also available at the office.

The agricultural statistics are the result of farmers, ranchers, and agribusinesses responding to various survey questionnaires during the year. Information they gave about their operations is confidential, and used only in combination with other reports. A special thanks for their voluntary contribution to making the estimates possible.

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We would like to thank Holly Hyer, Kurt Gutknecht, and Gary Neuenswander, USU Experiment Station; and Victor Saunders, Utah Farm Bureau, for helping to provide the photographs and county data graphics used in this publication.

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UTAH DEPARTMENT OF AGRICULTURE
1991 ANNUAL REPORT

Utah Department of Agriculture

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Data Processing Services	538-7113
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Director	538-7170
Ag Resource Development Loans	538-7176
Environmental Quality	538-7172
Soil Conservation	538-7171
Agricultural Statistics (USDA)	524-5003
Animal Industry	
Director	538-7160
Animal Health	538-7162
Serology Laboratory	538-7165
Animal Identification (Brands)	538-7166
Meat Inspection	538-7117
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Director	538-7128
Pesticide Residue Laboratory	538-7135
Bacteriology Laboratory	538-7129
Feed & Fertilizer Laboratory	538-7134
Meat Laboratory	538-7132
Food & Dairy	
Supervisor	538-7150
Bedding, Quilted Clothing, Upholstered Furniture	538-7151
Egg & Poultry	538-7148
Investigation	538-7141
Marketing & Promotion	
Director	538-7108
Livestock & Market News	538-7109
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Director	538-7180
Entomology	538-7184
Fresh Fruit & Vegetable Inspection	538-7183
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Grain, Seed & Feed Inspection	538-7187
Grain Grading Lab (Ogden UT)	392-0603
Pesticides/Fertilizers	538-7188
Seed Laboratory	538-7182
Noxious Weeds	538-7183
Weights & Measures	538-7158

State of Utah
DEPARTMENT OF AGRICULTURE
GOVERNOR'S CABINET

Norman H. Bangerter
Governor
Miles 'Cap' Ferry
Commissioner

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Dear Friends of Utah Agriculture:

This past year has brought both good news and bad news to agriculture, like any other year. The good news is that net farm income was up in 1990 and that prices for cattle -- Utah's biggest farm enterprise -- were holding steady at a fairly high level. Hay and grain prices were at an acceptable level, as well. Good winter snows held out hope of a break in the four-year drought, at least in some parts of the state.

The bad news, as often happens, comes in bunches. In early 1991, milk prices dropped to their lowest level since 1978, putting many dairy operations in real jeopardy; the drought continues for parts of southern Utah; and a series of fires set by an arsonist destroyed a number of central Utah haystacks.

Even worse obstacles to food production were looming in the area of agricultural issues. Two bills before the U.S. House of Representatives threatened to multiply grazing fees on public rangelands by about 500 percent, despite the fairness of the present grazing fee formula. Passage of either one would drive most Utah livestockmen out of business, so vital is public grazing to this state's cattle and sheep operations. And if livestock enterprises go, Utah's rural communities will suffer economic disaster. That would affect the entire state!

The animal rights movement is always in the background, constantly trying to make inroads on animal agriculture and to force all Americans into vegetarianism. Food safety scares based on emotion rather than scientific fact damage various segments of the agricultural -- and national -- economy.

Extreme environmentalism, including the push for huge amounts of wilderness, peck away at the nation's long-effective multiple use concept for public land. The riparian issue jeopardizes the use of both public and private land where water for food production purposes originates, such as rangeland springs and irrigation canals.

The answer to all this is an enlightened public which understands the problems of food producers and appreciates the efforts farmers and ranchers make to provide enough food for all Americans. With 2 percent of the population holding the key to the nation's food supply, the other 98 percent don't have to till the soil to feed themselves. Instead, they can do work they enjoy more.

Besides containing the annual report of the Utah Department of Agriculture and a compilation of agricultural statistics, this report again presents a valuable management tool for farmers and ranchers. It's the enterprise budget section at the back of the book. Agricultural producers who make use of those figures wisely can add efficiency to their operation and boost their income. This year, we've expanded them -including tractor costs, for instance -- to make the budgets even more useful than in past years.

Good luck in using this report of past experiences to guide your future. And please let us know how we can make this report more useful to you.

Sincerely,

Miles "Cap" Ferry, Commissioner
Utah Department of Agriculture

Mission Statement

The department has a mission "to protect public health and safety . . . by assuring consumers of clean, safe, wholesome, and properly labeled or measured products."

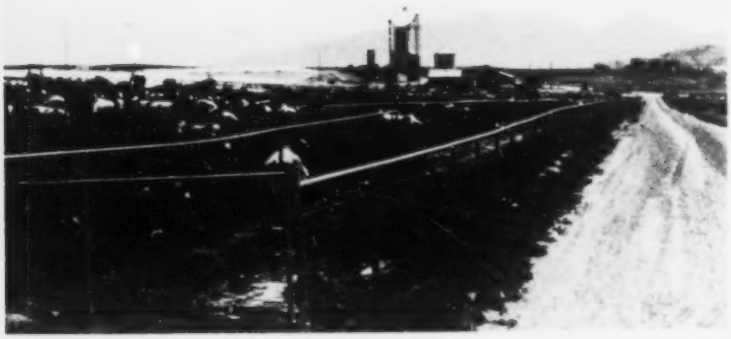
This department has a three-fold mission: To improve Utah's agriculture and allied industries financially through marketing and promotion; to conserve and develop Utah's agricultural resources; and to protect consumers, producers, and processors by regulating the agricultural code of the state.

Primary goals in each of the three parts of that mission are the following:

- **Marketing and Promotion**

To strengthen Utah's agriculture and allied industries financially by expanding present markets and developing new ones for Utah's agricultural products, locally and in the United States as well as overseas; to help develop new products and production methods; and to promote in-state processing of Utah agricultural products for a stronger state economy.

Part of UDA's marketing activity is to help sell Utah-produced grain, hay and meat overseas, especially to Pacific Rim countries.



- **Conservation and Development**

To protect, conserve and develop Utah's agricultural and natural resources, including water and land, among others.

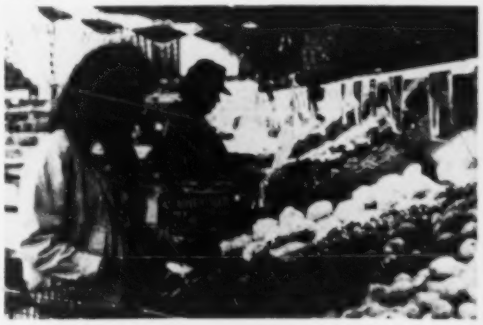
Because only about 21 percent of Utah's land area is privately owned, agricultural development is vital to the state's economy.

- **Regulation**

To protect public health and safety as well as agricultural markets by assuring consumers of clean, safe, wholesome, and properly labeled and measured or weighed products. This includes products inspected by UDA's animal industry, plant industry, weights and measures, and food and dairy inspectors and compliance officers. It also includes other consumer products such as bedding, quilted clothing and upholstered furniture.

This inspection also protects legitimate producers and processors by keeping their markets safe from poor products and careless processing.

Regulation of food, dairy and other consumer products makes UDA vital to Utah's lifestyle.



Commissioner's Office

1990-91 Progress

Activities of the Utah Department of Agriculture in the past year have covered many areas. A few of the more significant efforts are listed below:

Agribusiness Task Force -- Governor Norman H. Bangerter organized this group to stimulate Utah's rural economy through creative ideas for adding value to the state's agricultural products, thus creating more jobs and sales. The group is actively pursuing this goal.

Battling the gypsy moth -- The department served again as lead agency in the effort to detect and eradicate this costly insect pest, which first showed up in Utah in 1988. The 1990 spray program was effective, but the battle to protect orchards, forests, landscaping and watersheds is far from over.

Defending rangelands from grasshoppers and Mormon crickets -- These insects attack the rangeland which is so vital to Utah's economy. Poison bait spread over thousands of acres of federal and state land by UDA employees helped hold the line against the infestations.

Animal diagnostic laboratory progress -- Years of effort by the state veterinarian and others finally paid off with legislative funding of this important facility. Construction is about to start at the north end of the Utah State University campus. UDA will administer the lab in Logan as well as one in Provo; USU will operate it to prevent the spread of diseases to animals and humans.

Grazing fee increases -- Two bills proposing about 400 percent increases in grazing fees on public rangeland came before Congress last year and again this spring. Using money appropriated by the 1991 legislature, a grazing fee task force headed by the state commissioner of agriculture led the state's defense against the increases. Experts predicted a deep impact on the rural West if either bill passes.

Continued fruit sales to California, other states -- Export sales of Utah fruits and vegetables were threatened by infestations of insects such as the apple maggot. Creative efforts by UDA officials and continued control efforts preserved the markets and avoided quarantines.

Groundwater testing -- As the UDA chemistry laboratories geared up to handle a large increase in pesticide residue analyses on groundwater, the department's environmental quality section continued its progress in this important area. Lab tests for pesticide residues more than doubled during the past year, with agriculture proving to be less of a problem that was anticipated.

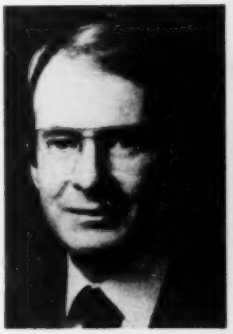
Brand renewals and the 1991 Utah Brand Book -- Last year was a brand renewal year (an every-fifth-year occurence), and 30,000 owners of livestock brands were reminded by mail and news releases to reclaim their brands if they wanted to keep them. At the end of the year, work began on a brand book listing all owners' names, addresses and phone numbers. It is on sale at UDA now for $25.00 per copy.

Beef sales to Taiwan, other Pacific Rim nations -- During the past year, a trade mission from Utah to Taiwan and Shanghai resulted in orders for Utah beef from those markets. The commissioner was also involved in leadership of agricultural marketing effort by Western state departments of agriculture.

USU's biotechnology laboratory -- Helping complete the equipping of this valuable facility was a priorty for UDA last year. The lab is now in operation, working on a number of research projects financed in part by the Utah Department of Agriculture.

Personnel, organizational changes at UDA -- Late last year, Edison Stephens -- long-time worker for Utah agriculture -- retired as deputy commissioner of the department. Van Burgess, former director of plant industry at UDA, took his place. The Food and Dairy division was also formed, and new leaders took over in several key positions in the department.

Poultry inspection approval -- To allow several Utah meat processing plants better serve their customers, Utah sought and regained USDA certification to inspect poultry. UDA gave up that authority in the 1970's in an economy move. Although the state has no broiler produc-



Miles "Cap" Ferry, Commissioner, Utah Department of Agriculture

Van E. Burgess, Deputy Commissioner, Utah Department of Agriculture

Fighting a 400 percent increase in grazing fees on federal rangeland such as this was a major effort of the commissioner's office during the past year.

City youngsters get an idea of what farmers must do to produce the nation's food during an Ag in the Classroom tour of a Salt Lake county dairy farm.

tion, some meat plants process carcasses.

"Product of Utah" promotion -- This program supplents "Utah Works" as a marketing effort to help Utah producers and processors, especially of agricultural products, increase sales both to state residents and to consumers in other states who prefer certain products from the Beehive state. Funding allows UDA to help advertisers with co-op money.

Motor fuel laboratory -- This much-needed facility will be in operation during the summer of 1991, thanks to progress during the past year. A capable lab technician and an upgrade of testing equipment will allow the Weights and Measures division to check octane ratings for various types of motor fuel.

Cougar, bear damage payments to livestockmen -- During 1990, a new program went into effect paying eligible sheep and cattle producers half the cost of damage done to their animals by cougars and bears. The funding is coming from sportsmen. Part of the requirement for collecting damages is the payment of predator control assessments by livestockmen, and renewed collection efforts were made during the year.

State employee savings bond drive -- During the spring of 1991, Governor Bangerter named the commissioner of agriculture chairman of the U.S. Savings Bond drive for state employees. That campaign ended successfully in May, with UDA ranking at or near the top of all state departments in participation.

Department computer system upgrade -- Not very visible to the outside world but vital to the daily operation of the department is its computer system. The present system is many years old, and program needs have outgrown its capacity. During the past year, planning and initial conversion work have taken place for a new Local Area Network (LAN) system.

Agricultural Research

Utah Department of Agriculture funds supported a number of important research projects, many of them at Utah State University. Funding included several biotechnological projects aimed at improving plant and animal genetics to build in disease resistance, faster growth, and other benefits.

Some of the key research projects were:

* Embryo transplant work on livestock.
* Riparian zone management.
* Faster grading methods for alfalfa hay.
* Shrub development for rangeland planting.
* Feasability study on cooking pork feed.
* Individually-quick-frozen vegetables.
* Low Insput Sustainable Agriculture (LISA).

Other Programs

- **Utah Junior Livestock Show Association** -- In response to a legislative request three years ago, officials of junior livestock shows in the state have worked for two years to write rules for junior exhibitors that would increase the educational value of the shows. Those rules were implemented during the past year with the desired effect. They require pre-weighing and ear-tagging of the animals as proof of ownership and management, with the youth feeding the livestock from a beginning weight to a desired finish weight.

- **Ag in the Classroom** -- This national program is designed to teach school children, especially those in urban and suburban areas, about agriculture and farm life. A state committee representing most agricultural enterprises has been operating in Utah for several years.

One of its products, a teachers' handbook for grades kindergarten through sixth grade, went into its second printing last year and has gone into more than 2,000 classrooms around the state. Articles of incorporation are ready for filing to organize a Utah Agriculture in the Classroom Foundation.

Information

- *News releases*
- *Publications*
- *Newsletters*
- *Exhibits*
- *Speech-writing*
- *Ag education*
- *Radio/TV*

Several hot issues in agriculture required a considerable amount of the department information officer's time during the past year. These included:

Grazing fees on public rangeland -- Two bills before the U.S. House of Representatives would boost grazing fees on Forest Service and Bureau of Land Management land by about 500 percent. Passage of either of these bills would put many Utah cattle and sheep ranchers out of business and have a disastrous effect on all of rural Utah. Working with a special task force, the information officer wrote news releases, letters and columns aimed at defeating the bills and keeping the present grazing fee formula, which is working well.

Animal rights movement -- Another threat to Utah's animal agriculture is this attempt to eliminate the use of meat, dairy foods, and other animal products and by-products. The information officer explained to the public the principal of free choice involved in using or not using meat, wool, etc.

Riparian and wetlands areas -- This information campaign defended the right of state, not federal, government to administer their own water rights and manage their own natural resources.

Other UDA information work included exhibits, agricultural information in schools, etc.

Administrative Services

The Division of Administrative Services provides financial support to all divisions within the Utah Department of Agriculture, insuring that all financial transactions are processed according to state policies and procedures and within budgetary guidelines. The division is also responsible for establishing internal policies and procedures for internal control of state assets, for centralized data processing services, and for human resource management services.

Some of the main accomplishments of the past year in the major areas of activity for the division are as follows:

- **Budget** -- A new program for budget preparation has proven very successful. Its foundation is a PC version of the budget preparation system provided by the state Office of Planning and Budget. With this software, each division director in the Utah Department of Agriculture can become more involved in the overall budget process. The system yields more information about each division's programs.

- **Personnel and payroll** -- Several training programs have been started for department employees as part of a current emphasis on training.

A two-day training course in customer service is helping 65 employees reduce stress in their relationships with people who come into the department to renew brands, pay for licenses, and do other business.

Other courses covered the subjects of management training, sexual harassment, substance abuse, use of computers, and a special mapping computer program used in controlling insect infestations and other situations.

Quarterly employee meetings have featured stress management, estate planning, and other topics.

- **Purchasing and other finance and accounting functions** -- Adopting a dual accounting system has, during the past year, saved many hours of reconciliation between department and state budget personnel, with a resulting saving in labor costs. Year-end closing, formerly a painful process, has been much smoother.

A new electronic system for writing checks allows payment within a few days instead of the process taking several weeks. A centralized cashiering plan has been instituted to provide better internal control of money, and a new program was written to make daily deposits more efficient.

- **Data processing** -- The Utah Department of Agriculture is the smallest state agency to have a data processing Internal Service Fund, which allows the collection of depreciation for buying new equipment from the department's own funds. With the coming purchase of a Local Area Network (LAN) system, the entire department will have access to advanced technology for better service to the public.

- **Licensing** -- This section designed a self-mailer for all licensing renewal notices and license certificates, which saves many hours of manual labor tearing copies apart and stuffing envelopes.

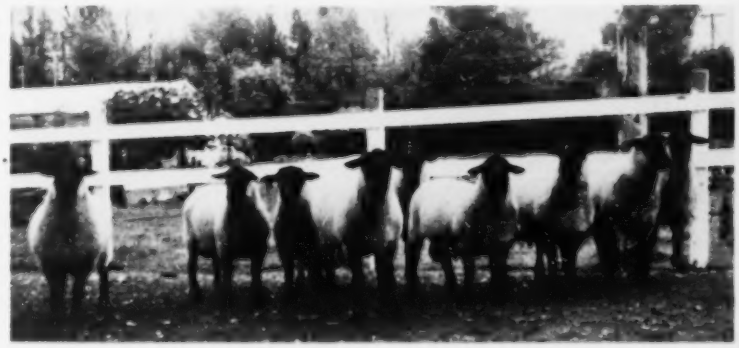
- **Contracts and administrative rule-making** -- Processing of contracts in a timely and efficient manner has been emphasized to help division directors perform their responsibilities.

- **Agricultural investigation** -- The department's agricultural investigator has been assigned to Administrative Services and given responsibility for the Animal Damage Control program (including predator control). He also files administrative orders to violators of state rules and, with a newly developed reporting system, informs division directors about action resulting from hearings, often in the form of fines for violations.

- **Miscellaneous services** -- New improvements include a mini motor pool to save on motor pool costs by sharing cars that would otherwise sit idle, a new FAX machine to speed communications, and a leave-accounting system that keeps adjustments current.

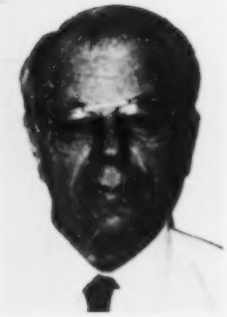
Renee Matsuura, Director of Administrative Services

- *Budget services*
- *Personnel services*
- *Purchasing*
- *Accounting*
- *Grants*
- *Data processing*
- *Licensing*
- *Rule-making*
- *Miscellaneous*



The agricultural investigator in the Division of Administrative Services at UDA works with the animal damage control program and collects predator control and promotion fees assessed to beef and sheep producers.

Agricultural Development & Conservation



James G. Christensen, Director of Agricultural Development and Conservation

Several different sections in this division work in widely varied areas to help improve Utah farmers' and ranchers' economic strength and to help guard the state's natural resources. Following are some of the areas assigned to the division:

SOIL CONSERVATION

Utah is divided into 39 soil conservation districts (SCD's), and the policy-making group in this area at the state level is the Utah Soil Conservation Commission, with its SCD members appointed by the governor. The main function of the soil conservation section is to work with districts and other groups in helping solve problems brought on by erosion and water pollution.

Every year, the division helps sponsor a Conservation Field Day in an area where special projects are in operation. The 1991 event took place in Davis county in mid-June, with a focus on relationships between districts and local land users.

The section's main goal is to help SCD's succeed with their duties and programs. SCD's have an important impact on keeping Utah's land productive and our water clean.

The soil conservation section also works with other state and federal government agencies to administer portions of the national farm bill. A new bill was written in Congress last year.

WATER QUALITY

With public interest running high in water quality, the work of this section has increased in the past year. Groundwater testing to check for pollution from agricultural sources has been under way for much of the report year; preliminary results show that pesticide residues are lower than expected, but continued monitoring is under way.

Because much of Utah's cropland is irrigated, the nonpoint source pollution activities of this section have a major impact on the state's agricultural industry. The program helps Utah landowners and users to manage their irrigation water and waste water systems so as to fall within federal and state pollution control standards. More runoff from feedlots, dairy lounging areas, and other agricultural facilities has been controlled in recent months and years than ever before.

More than 20 watersheds in Utah have been labeled as high-priority areas for nonpoint source pollution control programs. The designation calls for a management plan, and division staff members are working with officials to complete those plans and to help carry out the practices they entail.

Last year a team of specialists from other agencies worked in the section on a special one-year assignment: to test the salinity of the Colorado River and to effect an action program to reduce the level of the salts. The group has identified eleven geographical areas for control work.

During the year, the section added an information officer to its staff to help issue news releases and edit publications dealing with the water quality program.

AGRICULTURE RESOURCE DEVELOPMENT LOANS (ARDL)

This low-interest loan fund is administered by the Utah Department of Agriculture through this section. The purpose of the loan fund is to help Utah farmers and ranchers implement soil and water conservation practices to protect and preserve our vital natural resources.

Because four consecutive years of drought

Conservation Field Day offers farmers and ranchers, along with conservation workers, a chance to review the latest technology in protecting soil and water.

ARDL loans have helped many Utah farmers to develop soil and water management facilities.

have hit Utah's farmers and ranchers hard, the legislature appropriated $1.3 million in additional loan funds in their early 1991 session to help deal with the drought conditions. That amount was added to the $15.1 million that has built up in the ARDL loan fund over the 14 years it has been operating. Although the legislature normally doesn't specify the uses of the money, this year they requested that it go to help drought-stricken farmers and ranchers.

More than $28 million in improvement projects have been funded over the years, and as farmers and ranchers pay their loans down, the money is lent again to maintain progress. Two loan officers work with prospects and current borrowers to help them obtain financing to implement their conservation practices.

RURAL REHABILITATION LOAN PROGRAM

During the Depression days of the 1930's, the federal government launched a program to help farmers hang onto their property in the difficult times. When the depression ended, the goverment gave the funds to the states to use as low-interest loan funds. The funds are used to help young individuals get started in farming. They are also used to help other farmers make their operations more effective through the purchase of more land, livestock or equipment.

The original federal fund was only $300,000, but interest earnings over the half-century of its existence has allowed the revolving loan fund to reach about $1.5 million today.

WATER DEVELOPMENT

Utah has only one major undeveloped source of water left, the Bear River in the northern part of the state. It also flows through Wyoming and Idaho, which means that close cooperation is necessary to develop the two million acrea feet of water that flow into the Great Salt Lake in an average year Members of the division staff are working with water conservancy districts being authorized and set up in the affected counties to create and carry out a plan for storage and use of the Bear River water. As many as seven reservoirs might be built, over the years, to provide water for irrigation, wildlife, municipal and industrial uses.

The division also works with other water projects, such as the Central Utah Project, to help improve the productivity of the state's farm and ranch land.

RESEARCH GRANTS

State appropriations for reasearch are coordinated by the Division of Agricultural

USU researchers are looking for answers to a number of questions about rangeland, crop and livestock production that will boost ag earnings.

Development and Conservation, with grants going to researchers in a variety of projects. (See partial listing on page 6 in this report.) This division not only tracks the funds to be sure the research is moving ahead; it also works to put the scientific findings into effect on Utah's farms and ranches, with the help of the department's Plant and Animal Industry divisions and others.

This use of tax money -- $150,000 during the report year -- has made a big impact on Utah's agricultural revenues and on reducing costs on the state's farms and ranches. Much of the UDA-sponsored research is carried out at Utah State University, but other responsible research teams are also involved.

Animal Industry

Dr. Michael Marshall, State Veterinarian and Director of Animal Industry

- *Animal health*
- *Serology laboratory*
- *Meat and poultry inspection*
- *Animal identification (brand inspection)*

Work of the Animal Industry division of the Utah Department of Agriculture falls into four main bureaus or categories:

(1) Animal health, with special attention to animal diseases which can be transmitted to humans.

(2) Serology laboratory testing of animal blood for disease detection and control.

(3) Meat and poultry inspection to assure consumers of wholesome products.

(4) Animal identification (brand registration and inspection) to discourage livestock theft.

The division also works with the state's aquaculture industry to help with problems of food fish production and processing.

Major accomplishments in these areas during the past year were as follows:

- **Animal health** -- Perhaps the best animal health news for Utah's livestock industry coming out of the Utah Department of Agriculture during the past year was the legislative support given to a new animal disease laboratory. In February 1991, the legislature approved funding for the first half of construction on a new lab at the north end of the Utah State University campus in Logan.

Modern facilities costing $5 million will help prevent animal diseases and human diseases caused by animals. The old lab, located in the heart of the USU classroom area, posed health and traffic problems. While UDA will supervise the Logan facility (as well as the animal disease lab in Provo), USU will staff the new building.

An outbreak of botulism in California horses was traced to hay cubes from Delta, Utah. Division veterinarians helped investigate that situation and bring it to a successful conclusion. The reactivation of the Utah Horse Council also led to a review of the state's regulation requiring equine infectious anemia vaccination of horses coming into Utah from other states. The statute was left in effect.

Division employees developed a state program for the control of pseudorabies, a disease of swine, using federal guidelines. They implemented the program and gained a Stage II classification for Utah in the national program. The staff also updated rules for feeding garbage to hogs, including cooking requirements.

In the dairy cattle industry, the Animal Industry division reviewed and updated drug rules for the state's milk ordinance; it also revised drug use regulations for practitioners, including veterinarians, herdsmen, and others qualified to administer drugs to dairy cattle.

During the year, the assistant state veterinarian, who heads up the animal health program for the division, wrote new rules for qualified feedlot operators producing beef cattle.

He also used new computer programs to create lists of bird dealers, ostrich farms, canine heartworm incidence, and pseudorabies re-testing of imported hogs. A current study of heartworm incidence in the state will also go into one of the new programs.

Division staff members helped with a sheep toxicity problem in the Uintah Basin last year.

Division veterinarians met on a regular basis with the state's livestock enterprise groups and farm organizations, veterinary associations and other livestockmen.

They also reviewed all import health certificates for animals, worked closely with the ports of entry to be sure animals coming into Utah had proper inspection certificates, and performed other regular tasks in the area of animal health.

- **Serology laboratory** -- An emphasis on brucellosis prevention consumed a majority of the laboratory staff's time during the past year. Of 70,220 tests run in 1990, the majority were brucellosis blood tests and ring tests on milk to prevent this disease, which has serious implications

Utah's cattle industry is the foundation of the state's agricultural economy. Keeping herds healthy is a prime goal of the Animal Industry division.

for humans. The lab also dispensed nearly 140,000 doses of brucellosis vaccine in helping maintain Utah's coveted brucellosis-free status.

The balance of the tests run by the lab last year were for a variety of other animal diseases and for vaccine viability.

Working to help Utah become a pseudorabies-free state, the lab engaged in an ongoing pseudorabies monitoring program with Utah State University during the year.

Another important function of the serology lab during the year was to issue 1,700 import permits as part of the effort to regulate imported livestock and other animals, including rare birds.

Handling the clerical work, accounting, and reporting of test data in a timely manner was a time-consuming but important part of the lab's operation during the year.

• **Meat and poultry inspection** -- For the first time in nearly 20 years, the word "poultry" is back in the title of this bureau. After giving up its poultry inspection program in 1973 to economize, UDA reestablished the program late last year. Although Utah has no broiler production, several meat plants process chickens here to serve special needs of some of their customers. Having state inspection available allows them to compete better in the hard-hitting meat industry.

Major progress was made in 1990 in implementing a new Inspection System Work Plan (ISWP). This program, based on a federal plan, defines closely a meat inspector's role in carrying out his duties and specifies the processing plant's responsibilities in producing a wholesome product.

Weekly meetings between inspectors and plant management allows the two sides to work out differences and improve processing. This system has resulted in better relations between inspectors and plant managers. It has also allowed the division to handle nine new plants without adding to its inspection staff.

Training has had a special emphasis in the past year, with several retiring inspectors being replaced and a new veterinarian hired. New inspectors go through six to eight weeks of intense classroom and on-the-job training, then receive six months of closely supervised on-the-job training. In other training, three inspectors were certified as food technologists in a special training course at Utah State University, and seven others are more than halfway through the training.

Bureau employees conducted 140 certification reviews of processing plants, plus 26 reviews of plants that failed the first inspection. During the construction of the new processing plants, bureau managers reviewed blueprints and made inspections during construction to be sure sanitary regulations are being followed.

The bottom line for the division's work in meat inspection was this statement by one supervisor: "I'm confident that the meat I eat anyplace in the state will be good for me and is safe to eat."

Brands are the key to animal identification work. That makes branding time a busy time on Utah ranches.

• **Animal identification** -- Every five years, this bureau goes through a brand renewal process required by state law; this renewal process came due in 1990. Last year, employees mailed renewal notices to the some 30,000 Utah livestock owners who had registered brands and earmarks with UDA by the end of 1989, giving them a chance to lay claim on their identification marks for the next five years. The 22,000 brands and earmarks renewed last year have been printed in the "Utah Brand Book 1991," which sells for $25.00. This work was eased by a new computerized brand program.

The bureau has been involved recently in several investigations and civil cases on livestock theft detected by brand inspection.

Training of brand inspectors was advanced during the year; all inspectors who have been certified under police officer training have also become weapons-qualified for job safety. The bureau also held a two-day training course at Park City for all auction inspectors.

Working closely with the Utah Department of Transportation, which now operates the state ports of entry, brands officials did training for DOT employees. They also instituted a new program for checking incoming animals, including the purchase of a new computer for the port head office.

"I'm confident that the meat I eat anyplace in the state will be good for me and is safe to eat."

Chemistry Laboratories

Ahmad Salari, State Chemist

As a service organization to the other divisions of the Utah Department of Agriculture, the Division of Chemistry Laboratories performs a wide variety of analyses through the year.

Besides conducting analyses for UDA, the labs secured a contract during the past year to perform analyses on meat and meat products for the State of Montana. Fees charged for this work supplement the laboratories' budget to help pay for the added workload.

Additional testing equipment authorized by the legislature over the past five years has increased the capacity of lab personnel. As a result, increased workload, faster turn-around time, and greater quality control have only required the addition of one employee. He primarily handles the greatly increased demand for water quality testing -- mostly in analyzing pesticide residues in groundwater.

Analyzing groundwater samples is helping keep Utah's streams clean and free from pesticide residues.

The main categories of work in the chemistry laboratories are evident in this comparison between 1989 and 1990:

Type of Analysis	1989 Total	1990 Total	Percent Change
Commercial feed	1,411	1,129	-20.0
Commercial fertilizer	971	933	-3.9
Pesticide formulations	211	263	24.6
Pesticide residue	2,692	4.592	70.6
State meat	1,193	1,224	2.6
Federal & state meat	2,327	2,145	-7.8
Dairy bacteriology	20,590	20,796	1.0
Textile, bedding, upholstery	261	242	-7.3
Special samples	128	116	-9.4
Montana meat samples	--	65	N/A
Seed inspection	84	232	276.2
TOTAL	29,868	31,737	6.3

In pesticide residue testing of groundwater, about ten samples are tested each month for 38 different pesticides in four different pesticide groups. Each pesticide requires a separate analysis.

Because of the increased workload in this area, the pesticide residue laboratory is being enlarged and remodeled during the summer of 1991.

- **Chemical storage building** -- Another building project on which planning and discussion took place during the past year was a chemical storage building due for construction just northeast of the present UDA building. Officials hope to see this building constructed during the 1991-92 fiscal year to relieve congestion in the present laboratory.

Actually, two separate laboratories make up the division, the chemistry laboratory and the bacteriology laboratory. The first handles the analysis of meat and meat products and runs tests on feed, fertilizer and pesticide samples (for licensing, not for residue in milk and water).

The bacteriology lab handles analyses of milk and dairy products and does water testing. It also runs analyses for the department's Food and Dairy division. This includes testing raw milk for somatic cells, bacteria count, and the presence of antibiotics. In addition, it runs SPC and coliform tests on processed milk. When a problem is suspected on a dairy farm, this lab also tests for butterfat.

- **Improvement program** -- Several programs are in place in the chemistry laboratories to continually upgrade performance. For several years, the chemists have had an opportunity to rotate jobs within the lab, which gives them experience on different types of analysis. In addition to the analytical work reported above, another 334 analyses were performed last year on various check sample programs. These are nationally administered test programs to help laboratories check their techniques and, if necessary, make corrections.

The UDA laboratories take part in check sample programs for feed, fertilizer, pesticides, meat and dairy testing. A little over a year ago, Utah's laboratory placed first in the nation among 190 participating facilities in feed-testing accuracy.

One special type of testing performed for the Food and Dairy division is that done on upholstered products. By checking the type of material used in bedding, quilted clothing and upholstered furniture, this analysis protects consumers from unfair prices, health hazards, and risks to safety. Danger could result from sleeping bags and jackets failing to protect the user in extremely low temperatures that might be inaccurately listed on labels.

Food and Dairy

With agriculture holding its rightful place as Utah's most basic industry, regulation of the state's food and dairy production and processing facilities is vital to every Utahn.

This division's prime responsibility is to see that Utah consumers receive safe, wholesome, properly labeled food and dairy products. A group of well-trained compliance officers and graders carried out that function in six areas of responsibility.

- **Food inspection** -- Division employees performed the following food inspections in 1990:

Type of Establishment	Total Number	Inspections Done
Bakeries	215	366
Grain mills	13	15
Grocery stores	939	1,251
Food processors	385	443
Food warehouses	248	305
Meat processors	248	326
TOTALS	**2,048**	**2,706**

To prevent food that was misbranded or adulterated from moving into commerce, the division issued 32 hold orders during the year involving 66,283 pounds of product. Normally, the division can work out matters with the offending establishment without legal action. In three cases during the past year, however, civil action in the form of administrative orders resulted in $20,000 in fines being levied.

One area needing more attention in Utah food regulation is the smoking and curing of meat in the state's retail meat markets. Cooking temperature is one of the most critical factors needing attention, and compliance officers will keep a close check on this and other processing procedures in the future.

Compliance officers did a random sampling of smoked and cooked meat products for bacteria and nitrate content, and found them to be within normal limits.

Curing and smoking meat is a national concern, and Utah has membership on a committee of business and regulatory members planning to draw up guidelines for uniformity from state to state. The program will likely include licensing of establishments and operators who do the processing, more record-keeping on processing, and construction requirements to prevent contamination.

Aware of public concern over Salmonella being spread by whole, uncracked eggs in the shell, the division changed its rule on egg storage to require 45 degrees F. rather than the former 60 degrees. Compliance has been good.

Another type of product division employees checked during the past year was bottled water, along with vendors of that product. Utah adopted the federal code of regulations for bottled water, but an exemption for mineral water leaves a loophole for possible fraud. The division took action against one company claiming, on the label, that drinking their mineral water could reduce blood pressure.

- **Dairy inspection** -- Types and numbers of inspections in the dairy industry last year were as follows:

Type of Business	Total Number	Inspections Done
Grade A farms	453	2,086
Manufacturing farms	240	554
Dairy processors	31	99
Raw to retail	7	42
Milk haulers	115	123
TOTAL	**856**	**2,904**

A number of permits were suspended until violations of state regulations were cleared up.

One area of emphasis in the dairy program last year was in animal drugs. For the past two years, the division has stressed educating the dairy industry about drug residue issues. Much of this concern arose when the U.S. Food and Drug Administration announced that they had found residues of sulfamethazine (a drug not approved for use with dairy cows) in milk. Since the start of the education program, violations of drug usage -- as indicated in Bulk Tank Unit surveys -- dropped in 1990 to less than one-third of what they were in 1989.

Of 27 new permits issued to dairymen by UDA last year, 80 percent were manufacturing grade producers moving into Grade A production. This is part of a national trend toward a single grade of milk. UDA officials feel that there is a need for

Kyle Stephens, Director of Food & Dairy

- *Food inspection*
- *Dairy inspection*
- *Egg and poultry grading*
- *Meat compliance*
- *Label evaluation*
- *Administrative orders*

Utahns can be sure they're eating safe, wholesome food at home as well as in restaurants, thanks to diligent inspection by the Food and Dairy division.

Grading milk and cheese is a current trend in food and dairy regulation in Utah.

manufacturing milk production and is working toward preserving markets for such producers. Utah ranks first in the nation in number of manufacturing milk producers complying with USDA recommended requirements, evidence of the state's commitment to the present marketing structure.

Grading of dairy products is another trend in the industry. Utah compliance officers did an increasing amount of grading of cheese, shelf-stable milk and butter in 1990, and this work will likely continue through the current year.

- **Egg and poultry program** -- Areas of activity in this program include shell, retail and USDA egg grading; egg products inspection; poultry grading; and shell egg surveillance.

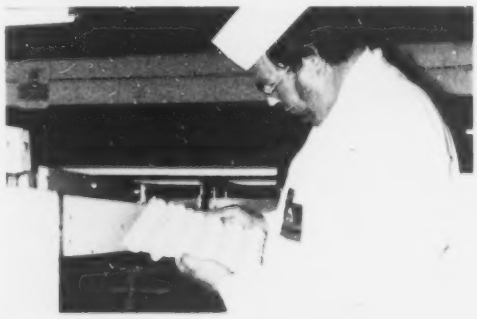
Utah has adopted the USDA standards for grading eggs and egg products. Graders from the division graded 28,400 cases of eggs in retail stores and 52,632 cases at the plants in 1990. Plant owners who want the USDA shield on their egg containers may pay to have continuous inspection for quality and size. The Food and Dairy division has employees who are licensed to provide such inspection.

Of the 162,743 (30-dozen) cases graded in Utah in 1990, only 1,840 cases were embargoed for being below USDA standards or having too many cracked, leaking or dirty eggs. The low percentage of embargoed eggs indicates the high degree of compliance with the shell egg law by producers.

Egg products inspected by division employees include dried, liquid and frozen eggs. Utah has one egg-breaking plant which is under continuous inspection by UDA to see that safe, clean, sanitary conditions are met for receiving, refrigerating, washing, candling, sanitizing, breaking, pasteurizing, formulating and packaging the eggs. In 1990, a total of 204,430 cases of eggs were broken and pasteurized.

"Utah has one egg-breaking plant, which is under continuous inspection by UDA to see that safe, clean, sanitary conditions are met . . ."

Nearly 60 million eggs were graded in Utah last year by UDA, on farms and in retail establishments.



Two types of poultry grading take place in Utah. One is the grading of turkeys -- 5 million birds totaling 70.5 million pounds of ready-to-cook turkey in 1990 -- at Utah's two turkey processing plants in Moroni and Salina. This work, done by USDA-licensed graders to federal standards, assures consumers of federal-quality products.

The other type of grading is done on turkeys and chickens going into the school lunch program. Such grading amounted to 506,915 pounds of poultry during 1990.

Shell egg surveillance work consists primarily of inspecting egg producers and handlers for compliance with the federal Egg Products Inspection Act. This covers handling and disposition of restricted eggs -- checks (cracked), leakers, loss eggs, inedible eggs and dirty eggs. Some eggs, if sound and properly labeled, may be used at a breaking plant; others must be denatured and destroyed or diverted to animal feed. In 1990, a total of 14,220 cases of eggs were graded under the surveillance program.

- **Meat compliance program** -- This work is conducted cooperatively with USDA, which pays 50 percent of the program's costs toward the goal of ensuring that meat and poultry products are safe, wholesome, and properly labeled. During 1990, eleven division compliance officers conducted 736 reviews of meat sources at restaurants, retail stores, warehouses, and all levels of commerce.

Training received at a federal law enforcement center in Arizona helped the division learn the latest methods of case preparation and documentation, surveillance tactics and equipment, constitutional theory relating to regulatory work, and changes in federal regulations.

- **Label evaluation** -- Before a food processor can put a label on a new product or change the label on a current one, UDA must approve the label's language and design. In 1990, the Food and Dairy division evaluated more than 500 labels under federal guidelines. Also during 1990, Utah Senator Orrin Hatch worked with Senator Howard Metzenbaum of Ohio to secure passage of the federal Nutrition Labeling and Education Act.

- **Administrative Orders** -- The director of the Food and Dairy division acts as department hearing officer and oversees proceedings designed to give violators of the state agricultural code access to due process of law without tying up the judicial system. During 1990, the hearing officer conducted ten informal hearings and was involved in a number of pre-hearing settlements.

Marketing and Promotion

The Marketing and Promotion division's mission is to strengthen Utah's agriculture and allied industries financially by expanding present markets and developing new ones -- including overseas -- for Utah agricultural products. It also helps develop new products and production methods and promotes in-state processing of Utah agricultural products for stronger local and state economies.

Work by members of the division staff falls into these six key areas:

- **Buyer-seller communication** -- Directories published by the division help put suppliers and buyers in touch with each other. An annual hay directory lists all known buyers and sellers in the state, including tonnage and hay form (large bales, small bales, cubes or pellets).

Also being compiled is a Utah food and agricultural suppliers' directory. It will list Utah companies which process agricultural products, and the division will use it to promote sales to new markets, especially overseas.

- **Market research** -- Up-to-date information on potential markets for various Utah food products is available from the division. For example, the U.S. Foreign Agriculture Service forwards trade leads to Utah weekly, which the division passes on the in-state producers and processors who might be able to supply them. Products include live animals, grain, hay, fruits, processed foods, and many more.

- **Government interface** -- Expanding product distribution can require new certification, licensing and labeling for a company. The marketing and promotion division is able to help expedite this.

Federal funds are available to help market some products, especially overseas. The division has helped Utah companies obtain more than $90,000 in USDA Market Promotion Fund monies.

- **Product promotion** -- Joint promotions, trade shows and industry tours are some of the methods used by the division to boost sales of Utah products.

"Utah Works" is one promotion that has been in operation for several years. Last year a new program joined it: "Product of Utah." Cooperators who use the logo at the left on their packaging and advertising receive co-op money.

Trade delegations visiting Utah from overseas buying firms have toured a number of Utah processing plants in the last year, making purchases as a result.

A year-long major beef promotion in Pacific Rim countries by the division, in cooperation with E. A. Miller (a Utah meat packer) and the Meat Export Federation, resulted in sales of more than $1,000,000 through March 1991.

- **Education** -- Staff members work with members of industry to educate them on domestic and international marketing opportunities. A Governor's Task Force on Agribusiness Development, set up in the past year, has provided a good educational opportunity. Representatives of various industries have met with department officials to explore new ways to keep processing jobs in Utah. As a result, the state's rural economy is being strengthened.

Value-adding projects launched with division help in the past 12 months include a beef-feeding project using turkey by-products to reduce the cost of gain in steers. And whey -- a former waste product from the state's cheese plants, is now being specially filtered and sold to health food outlets as immunoglobulins.

Fish farming is becoming a big business in Utah, with the help of value-added projects funded in part by UDA's marketing

- **Market news** -- This section collects information on trade conditions, prices and trends in livestock, grain, hay, fruits and vegetables. Staff members use the telephone, computer wires, personal contacts and auctions to gather data. It is then given to the public through newspapers, radio broadcasts, newsletters, television teletext, computer wires, and telephone recordings. The section also publishes a weekly newsletter to summarize the week's information.

Jim Bradley, Marketing and Promotion Director

- *Buyer-seller communication*
- *Market research*
- *Government interface*
- *Product promotion*
- *Food industry education*
- *Market news*

Plant Industry

G. Richard Wilson, Director of Plant Industry

Eight of Utah's twelve agricultural statutes come under the administration of the Plant Industry division. That fact causes this segment of the Utah Department of Agriculture to perform a wide variety of tasks. The division's work falls under the following headings:

- *Entomology*
- *Fertilizers*
- *Pesticides*
- *Seed inspection and testing*
- *Grain inspection*
- *Fruit and vegetable grading*
- *Noxious weeds*
- *Commercial feed*

- **Entomology** -- The state entomologist, who is an employee of UDA's Plant Industry division, administers the Utah Insect Infestation Emergency Control Act, the Utah Nursery Act, the Utah Bee Inspection Act, and several other insect-related services in the state.

Several insects were at the infestation level in Utah last year. Perhaps the most publicity was given to the battle against the gypsy moth. This pest, which not only is a nuisance in urban areas, causes severe damage to fruit and other hardwood trees and harms the watershed in such mountainous areas as Utah. It was first detected in the state in July 1988, and last year was the second year of a trapping and spray program intended to wipe out the pest here.

More than 20,000 acres in Davis, Salt Lake and Utah counties were treated with an aerial spray, bacillus thuringiensis, in the spring of 1990, with nearly 30,000 acres being treated this spring. More than 5,000 traps were set out late last summer to see how effective the 1990 spray program was and to locate areas needing treatment this year.

Another serious insect pest in Utah last year was the apple maggot. Since the detection and control program began in 1985, about 18,000 trees a year have been removed from abandoned and uncared-for orchards. About 250 property owners are contacted every year on orchard spray techniques. In 1990, some 15,000 traps were set out in the survey of adult apple maggots.

If this pest were not being controlled, Utah fruit growers would lose valuable markets in California and other states.

Grasshoppers and Mormon crickets came in for close attention and extensive control efforts last year. During the control season of 1990, workers treated 8,465 acres with carbaryl bait on BLM, Forest Service and state-owned land. Another 29,312 acres of grasshopper-infested rangelands were also treated.

When the 1990 adult grasshopper survey was completed late in August 1990, it indicated that Utah still has about 71,670 acres infested with grasshoppers and 147,260 acres with Mormon crickets requiring control efforts this summer.

Russian wheat aphid has spread rapidly in northern Utah, with about 20,000 acres treated two years ago and a doubling of treated acres the next year.

Inspecting bee colonies is another task of the state entomologist. In the past year, UDA licensed 725 beekeepers and inspected about 35,000 colonies of bees, detecting 706 with disease problems. UDA's rigid inspection program has kept disease conditions under 2 percent. The state conducts annual surveys for tracheal and Varroa mites; so far, these damaging pests have not shown up in Utah.

The division also licensed 475 firms and individuals who sell nursery stock in the state. Employees also made 617 inspections for export shipment of plant products, checking them for freedom from serious pests and for accurate labeling.

- **Fertilizer program** -- Last year, division inspectors made nearly a thousand inspection visits to Utah establishments which sell fertilizers. They took 377 samples for analysis by the UDA chemistry laboratory, which found that 31 of them failed to meet label guarantees. The division also registered 1,558 different fertilizer products from 241 manufacturers and licensed 30 fertilizer-blending operations.

- **Pesticide program** -- This is one of the most important activities of the division because of the pressure, on one hand, to produce plentiful supplies of food for domestic consumption and overseas. On the other hand is the pressure from environmentalists to reduce or eliminate the use of chemicals in food production.

Many of the division's activities in this area are aimed at the sensible use of safe chemicals. For instance, the division certified 787 commercial,

UDA registers all pesticide products and licenses all dealers. Inspectors also make repeated visits to such stores as this to watch for unregistered items.

non-commercial and private applicators during the past year and recertified 694 others in 19 training sessions..

Division employees contacted 649 pesticide manufacturers, registered 6,667 products, and investigated then certified 101 new products on the market. They licensed 120 pesticide dealers and made 1,107 inspections at pesticide sales establishments, collecting 189 samples for chemical analysis. In 213 investigations of pesticide use, the inspectors found 28 violations.

In other pesticide work, the division's staff writes new state regulations, as needed, and develops programs to enforce them. New programs in this area are endangered species and farm worker safety. Employees work with county agricultural agents as well as the district inspectors on training programs and related activities. They also coordinate with federal agencies, especially the Environmental Protection Agency (EPA).

- **Seed inspection and testing** -- The department's seed analysts and seed laboratory technician conduct various tests on nearly 3,000 seed samples submitted every year by UDA's agricultural inspectors, seed companies, and other interested parties. They primarily check for germination percentage, purity, and presence of noxious weeds, but they do other tests on request. If samples are found to be inaccurately labeled, the seeds are withheld from sale. In extreme cases, interstate violations are submitted to the federal seed agency for prosecution; 50 such cases were turned over to the USDA in the past report year.

During the same year, 731 inspections took place at 99 seed sales outlets. Of 1,869 seed samples tested and 4,853 laboratory analyses done, only 151 violations were found. Those samples represented 2,007,576 pounds of seed.

- **Grain inspection** -- UDA's recently mechanized grain inspection facility is located near Wall Avenue and 17th Street in Ogden. Last year, nearly 21,000 samples -- 20,798, to be exact -- were taken from grain trucks by a hydraulically operated probe and sent to the grading laboratory through a pneumatic tube. In the lab, testers checked moisture content, protein, foreign matter, and insect damage. Then they issued an inspection certificate for the protection of both buyer and seller.

The prolonged drought in Utah cut the number of inspections -- yields were low for Utah grain producers, who had less product to haul.

- **Fruit and vegetable grading** -- These figures on shipping point and cannery grading performed by the division's agricultural inspectors during the past year are impressive:

Type of produce	No. of Inspections	Pounds Inspected
Onions	717	40,033,902
Brine cherries	--	794,625
Tart cherries	--	10,071,181
Fresh cherries	34	865,072
Peaches	22	511,734
Apples	48	1,269,040
Seed potatoes	6	549,050

Utah's grain inspection facility near Wall Ave. in Ogden performs an important job for the state's grain buyers and sellers alike by providing a written record of moisture, protein content, and other quality data.

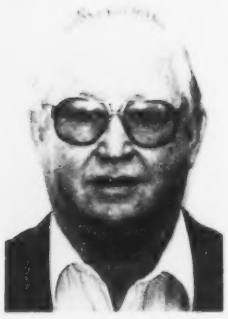
- **Noxious weed control program** -- The division furnished leadership for this program in the counties, where county weed organizations work to control noxious weeds.

In the past year, agricultural inspectors made 1,330 visits and inspections throughout the state. The worked with state and federal agencies, utility companies, county weed supervisors and other county officials, private landowners and retail establishments in encouraging control work.

The division's weed specialist and the inspectors also worked with Extension and research personnel at Utah State University to encourage the use of the most effective methods of controlling the more serious weeds.

- **Commercial feed program** -- This activity involves inspection, registration, and sampling of commercial feed products. During the report year, 3,995 feed products from 504 manufacturers were registered. As a result of investigations, 487 additional products were registered. Inspectors collected 438 samples for testing, with 48 violations.

Weights and Measures



Robert Smoot, Director of Weights & Measures

- *General inspection*
- *Large-capacity scales*
- *Propane meters*
- *Large-capacity petroleum and water meters*
- *Metrology lab*
- *Motor fuel lab*
- *Milk tanks*
- *Bedding, quilted clothing, upholstered furniture*

The Weights and Measures division's assignment for the state of Utah is fourfold:

(1) To inspect and certify all commercial weighing, measuring, counting and timing devices;

(2) To inspect all food and non-food products sold in Utah to be sure the information on the label matches the contents of the package;

(3) To verify that the contents and octane rating of motor fuels are as shown on the pump;

(4) To inspect commercial sources of bedding, quilted clothing and upholstered furniture to be sure sales and repair services are properly licensed and that goods sold are properly labelled.

Eight areas in the division help carry out this mission. Major accomplishments of the past year in those areas were as follows:

- **General inspection** -- Carrying out the first assignment listed above is an endless job. Two huge areas of responsibility are checking packaging to see that labels accurately describe contents and checking scanners in grocery, discount, department and other stores. Every item in every store is subject to such inspections.

Added to that is the need to inspect all small scales, gas pumps, and timing and measuring devices. However, some progress was made during the past year. The division's capacity to check in-store scanners was improved, for instance, so that more tests can be made in the same amount of time.

Setting a goal to check a wider variety of packaged goods, weights and measures inspectors found some significant shortages. Ten and twenty-pound bags of potatoes from other states were found to be two to three pounds short, for instance.

Two ongoing winter problems are firewood and windshield washer detergent. That a cord of wood is ordered and paid for doesn't necessarily mean a cord is delivered. Inspectors found that when the wood is stacked carefully, the pile seldom measures 4 by 4 by 8 feet. And in only one or two cases did they find that windshield washer solvent actually gave protection down to the temperature on the label.

Testing and certifying every commercial weighing and measuring device in Utah is a huge job for weights and measures inspectors.

Division employees urge the public to phone them about incorrect pricing, labelling, etc., at (801) 538-7158. They follow up on all complaints.

- **Large-capacity scales** -- With the recent upgrading of the second of three large-scale testing vehicles, division employees are able to perform more tests on large-capacity vehicle, belt and livestock scales in the same time as before with greater safety. A magnetic retarder was added for greater highway safety, and remote controls and a hydraulic controller on the truck's crane boosted its capacity.

- **Propane meters** -- These devices become inaccurate through normal wear and tear, and with the high volume of cash flow in propane sales, the division's single "volumetric prover" -- one of only two such testing trailers in the state -- was kept busy locating faulty meters.

- **Large-capacity petroleum and water meters** -- Three provers or testing devices throughout Utah help inspectors test and certify refinery pumps, airport fuel trucks, water meters at cement plants, town water meters, and other large meters. During recent months, inspectors have condemned such pumps until repairs put them in certifiable condition.

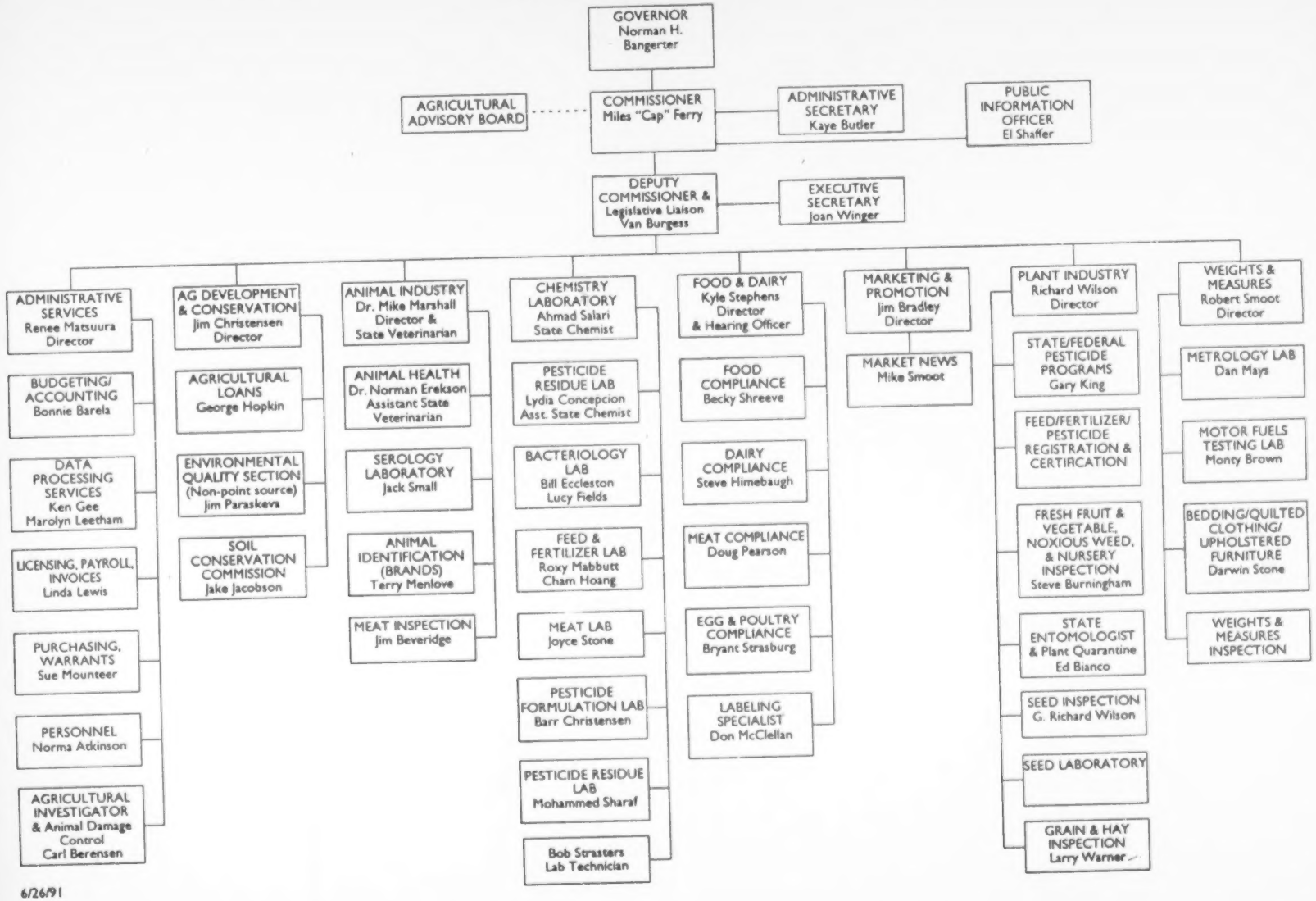
- **Metrology lab** -- This lab, which houses the primary weight, length and volume standards for Utah, gained total certification for the first time during the past year. New systems were installed in the lab to hold temperature and humidity constant.

- **Motor fuel lab** -- This was the area of greatest progress in the division during recent months. One of two research engines for gasoline octane testing was converted to the motor testing method so the lab can run official tests. The division hired an expert in motor fuel testing and will have the lab running official tests in late summer of 1991. The division also bought new equipment to test the flash point and pour point of diesel fuels to cut pollution.

- **Milk tanks** -- This testing is mostly done in response to requests from either dairy farmers or processing plants. The cold halts testing in winter.

- **Bedding, upholstered furniture, and quilted clothing** -- Many items of quilted clothing and sleeping bags are being imported these days, especially by chain stores. This inspector has emphasized testing these items, reviewing labels, and checking for appropriate licenses. He also inspects upholstery shops to assure legality.

UTAH DEPARTMENT OF AGRICULTURE
ORGANIZATION CHART



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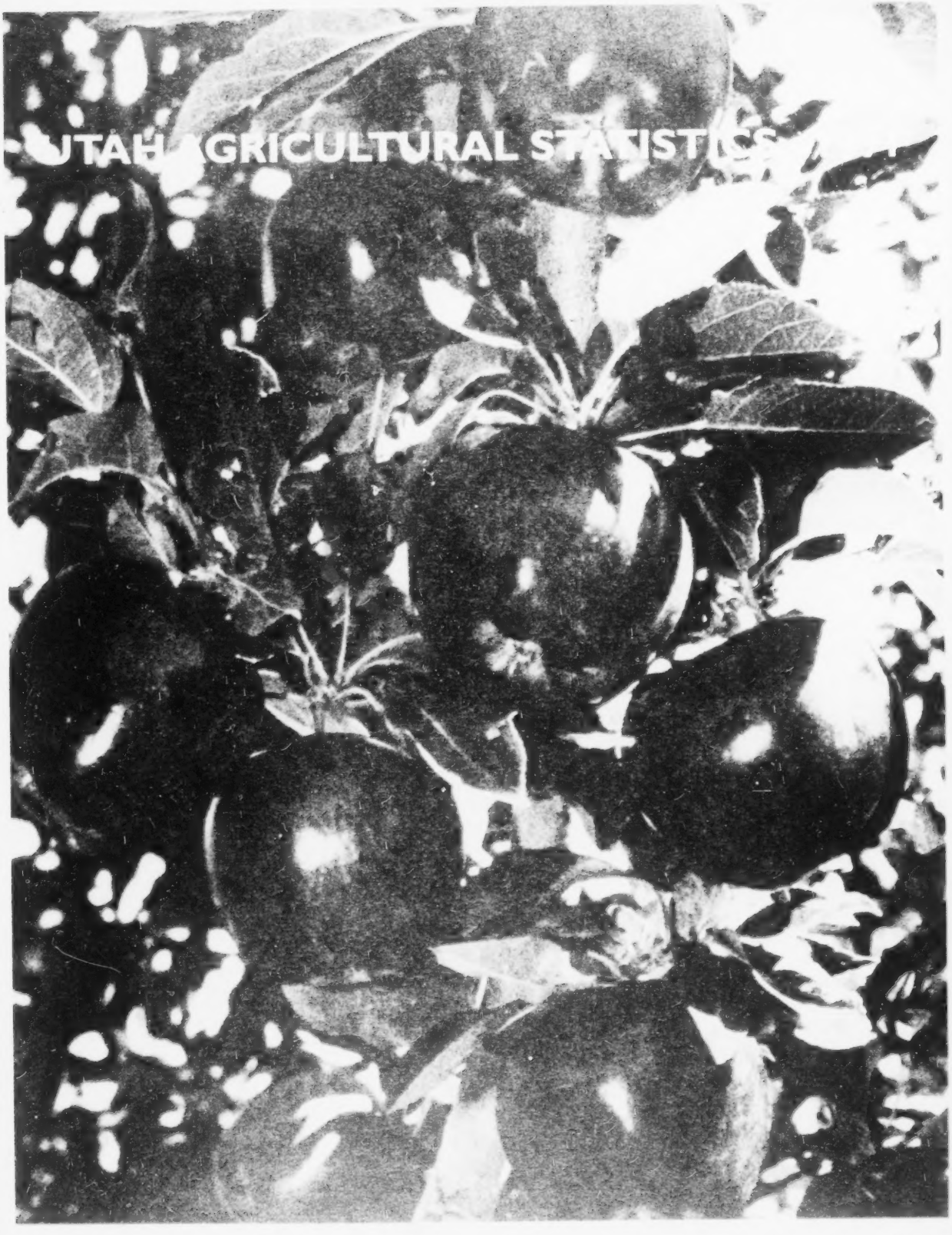
UTAH AGRICULTURAL STATISTICS



POPULATION OF COUNTIES, Utah

County	United States Census - April 1980						July 1, 1990 Est. 1/
	Total	Urban		Rural			
		Total Urban 2/	Percent of Total	Total Rural	Places of 1,000 to 2,500	Other Rural	Total
Beaver	4,378	--	--	4,378	3,085	1,293	4,750
Box Elder	33,222	19,060	57.3	14,162	3,730	10,432	36,500
Cache	57,176	38,464	67.3	18,712	11,095	7,617	70,500
Carbon	22,179	11,810	53.2	10,369	3,348	7,021	20,200
Daggett	769	--	--	769	--	769	700
Davis	146,540	143,499	97.9	3,041	--	3,041	182,000
Duchesne	12,565	3,842	30.6	8,723	1,677	7,046	12,600
Emery	11,451	--	--	11,451	8,209	3,242	10,300
Garfield	3,673	--	--	3,673	1,343	2,330	3,950
Grand	8,241	5,333	64.7	2,908	92	2,816	6,600
Iron	17,349	10,972	63.2	6,377	1,836	4,541	20,900
Juab	5,530	3,285	59.4	2,245	--	2,245	5,800
Kane	4,024	--	--	4,024	2,148	1,876	5,150
Millard	8,970	--	--	8,970	4,013	4,957	11,300
Morgan	4,917	--	--	4,917	1,896	3,021	5,550
Piute	1,329	--	--	1,329	--	1,329	1,250
Rich	2,100	--	--	2,100	--	2,100	1,750
Salt Lake	619,066	613,466	99.1	5,600	--	5,600	728,000
San Juan	12,253	3,118	25.4	9,135	1,929	7,206	12,600
Sanpete	14,620	2,810	19.2	11,810	6,470	5,340	16,300
Sevier	14,727	5,482	37.2	9,245	3,468	5,777	15,400
Summit	10,198	2,823	27.7	7,375	2,095	5,280	15,700
Tooele	26,033	18,754	72.0	7,279	2,745	4,534	26,700
Uintah	20,506	6,600	32.2	13,906	2,216	11,690	22,200
Utah	218,106	197,267	90.4	20,839	6,843	13,996	266,000
Wasatch	8,523	4,362	51.2	4,161	1,194	2,967	10,100
Washington	26,065	14,442	55.4	11,623	5,635	5,988	49,100
Wayne	1,911	--	--	1,911	--	1,911	2,150
Weber	144,616	127,671	88.3	16,945	2,379	14,566	159,000
State Total	1,461,037	1,233,060	84.4	227,977	77,446	150,531 3/	1,729,000

1/ State Office of Planning and Budget, State of Utah. 2/ Urban population includes persons living in areas or places of 2,500 inhabitants or more. 3/ May not add due to rounding.

FARM POPULATION VS. TOTAL POPULATION, Utah, 1930-1980 Censuses.

Year	Total Population	Farm Population	
		Number	Percent of Total
1930	508,000	116,000	22.8
1940	550,000	105,000	19.1
1950	689,000	81,000	11.8
1960	891,000	65,000	7.3
1970	1,059,000	38,000	3.6
1980	1,461,000	N/A	

"Farm Population Estimates" Rural Development Service, USDA Statistical Bulletin.

RANKING: Utah's Rank and United States Total, Top Six States, by Agricultural Category.

Category	Unit	Top Six States						Utah's Rank	United States Total
		First	Second	Third	Fourth	Fifth	Sixth		
GENERAL									
No. of Farms & Ranches, 1990	Farms	TX 186,000	MO 108,000	IA 104,000	KY 93,000	MN 89,000	TN 89,000	37 13,200	2,143,150
Land in Farms & Ranches, 1990	1,000 Acres	TX 132,000	MT 60,500	KS 47,900	NB 47,100	NM 44,500	SD 44,300	28 11,300	987,721
Cash Receipts from Farm Marketings, 1989	Mil. Dollars	CA 17,515	TX 10,760	IA 9,119	NB 8,521	IL 6,710	MN 6,526	38 748	159,173
FIELD CROPS									
Harvested Acreage Principal Crops, 1990 2/	1,000 Acres	IA 23,276	IL 22,809	ND 21,229	KS 20,978	MN 18,779	TX 18,546	36 992	309,051
All Wheat Prod. 1990	1,000 Bushels	KS 472,000	ND 385,220	OK 201,600	WA 150,080	MT 145,865	MN 138,620	33 7,170	2,738,594
Other Spring Wheat Prod. 1990	1,000 Bushels	ND 277,200	MN 134,750	SD 67,200	MT 53,900	ID 30,600	WA 11,480	9 1,170	583,124
Winter Wheat Prod. 1990	1,000 Bushels	KS 472,000	OK 201,600	WA 138,600	TX 130,200	IL 91,200	MT 87,500	32 6,000	2,033,299
Barley Prod. 1990	1,000 Bushels	ND 129,850	MT 56,580	ID 56,160	MN 50,400	SD 24,500	WA 22,620	11 8,505	418,856
Oats Prod. 1990	1,000 Bushels	SD 53,200	MN 48,180	WI 47,570	IA 40,800	ND 30,600	OH 16,100	31 816	357,149
Field Corn for Grain Prod. 1990	1,000 Bushels	IA 1,562,400	IL 1,320,800	NB 934,400	MN 762,600	IN 703,050	OH 417,450	39 2,660	7,933,068
Corn Silage Prod. 1990	1,000 Tons	WI 9,380	NY 8,700	PA 6,240	MN 5,760	CA 5,250	IA 4,650	26 923	86,844
All Potato Prod. 1990	1,000 Cwt.	ID 112,340	WA 67,980	CO 24,032	WI 23,075	OR 23,014	ME 20,520	26 1,643	393,867
All Dry Bean Prod. 1990	1,000 Cwt.	MI 5,445	ND 5,005	NB 5,004	CO 4,275	ID 3,560	CA 3,108	17 13	32,429
Alfalfa Hay Prod. 1990	1,000 Tons	WI 8,400	CA 6,996	IA 6,375	MN 5,120	MI 4,875	NB 4,785	17 1,843	83,555
All Hay Prod. 1990	1,000 Tons	WI 9,120	CA 8,307	TX 8,000	NB 7,370	IA 7,095	MO 6,865	26 2,123	146,985

1/ In accordance with ERS Agricultural Resources, Outlook and Situation Summary.
2/ Crop acreages included are corn, sorghum, oats, barley, wheat, rice, rye, soybeans, flaxseed, peanuts, sunflowers, popcorn, cotton, all hay, dry edible beans, potatoes, tobacco, sugarcane, and sugarbeets.

RANKING: Utah's Rank and United States Total, Top Six States, by Agricultural Category.

Category	Unit	Top Six States						Utah's Rank	United States Total
		First	Second	Third	Fourth	Fifth	Sixth		
FRUITS & VEGETABLES									
Apples Utilized Prod. All Commercial, 1990	1,000 Lbs.	WA 4,700,000	NY 990,000	MI 750,000	CA 650,000	PA 520,000	NC 230,000	26 22,000	9,484,700
Apricot Utilized Prod 1990	Tons	CA 113,000	WA 7,200	UT 240	--	--	--	3 240	120,400
Sweet Cherry Utilized Prod. 1990	Tons	WA 53,000	OR 40,000	CA 22,000	MI 13,500	ID 1,600	UT 1,350	6 1,350	132,350
Tart Cherry Utilized Prod. 1990	Mil. Lbs.	MI 160.0	UT 13.5	NY 13.3	OR 7.5	WI 4.4	PA 3.3	2 13.5	202.9
Pear Utilized Prod. 1990	Tons	WA 372,000	CA 332,000	OR 228,000	NY 14,600	PA 3,200	UT 2,800	6 2,800	958,650
Peach Utilized Prod. Freestone, 1990	1,000 Lbs.	CA 572,000	GA 123,000	SC 95,000	PA 76,000	WA 53,000	MI 45,000	14 11,500	1,156,600
Summer Storage Onion Prod. 1990	1,000 Cwt.	OR 7,215	CO 5,130	NY 4,636	ID 4,446	WA 2,992	MI 2,442	7 912	28,809
LIVESTOCK, MINK & POULTRY									
All Cattle & Calves Jan. 1, 1991	1,000 Head	TX 13,400	NB 6,000	KS 5,700	OK 5,550	CA 4,750	IA 4,750	36 810	99,436
Beef Cows Jan. 1, 1990	1,000 Head	TX 5,360	MO 2,040	OK 1,870	NB 1,827	SD 1,513	MT 1,428	31 321	33,620
All Hogs & Pigs Dec. 1, 1991	1,000 Head	IA 14,000	IL 5,700	MN 4,500	IN 4,300	NB 4,300	MO-NC 2,800	37 33	54,562
Honey Prod. 1990	1,000 Lbs.	FL 20,900	CA 20,160	SD 19,845	ND 17,220	MN 12,580	TX 9,380	26 1,739	196,035
Mink Pelts Prod. 1989	Pelts	WI 1,155,100	UT 780,000	MN 545,900	ID 285,000	OR 255,000	WA 237,200	2 780,000	4,602,300
Stock Sheep & Lambs Inv. Jan. 1, 1991	1,000 Head	TX 1,820	CA 735.0	WY 720.0	MT 650.0	SD 555.0	UT 480.0	6 480.0	9,470.6
Turkeys Raised 1990	1,000 Head	NC 58,000	MN 46,300	CA 32,000	AR 22,000	MO 18,000	VA 17,000	14 3,930	283,000
Egg Prod. 1990	Mil.	CA 7,472	IN 5,445	PA 4,976	OH 4,667	GA 4,302	AR 3,620	29 456	67,832
Milk Prod. 1990	Mil. Lbs.	WI 24,400	CA 20,953	NY 11,102	MN 10,006	PA 9,933	TX 5,539	29 1,267	148,284
Trout Prod. 1990	1,000 Dollars	ID 40,000	CA 3,986	NC 3,774	UT 2,643	PA 1,582	VA 860	4 2,643	56,766

RECORD HIGHS AND LOWS: Acreage, Yield, and Production of Utah Crops

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
CORN FOR GRAIN						
Acres Harvested	1,000 Acres	22	1988	2	1963 & 66	1919
Yield	Bushels	140.0	1987 & 90	17.0	1934	
Production	1,000 Bushels	2,800	1987	85	1934	
CORN FOR SILAGE						
Acres Harvested	1,000 Acres	80	1975 & 76	2	1920-22	1919
Yield	Tons	21.0	1987	6.0	1934	
Production	1,000 Tons	1,501	1980	17	1921	
OATS						
Acres Harvested	1,000 Acres	82	1910	10	1977	1882
Yield	Bushels	74.0	1989	25.0	1882 & 83	
Production	1,000 Bushels	3,338	1914	550	1977	
BARLEY						
Acres Harvested	1,000 Acres	190	1957	8	1898	1882
Yield	Bushels	83	1987	22.0	1882	
Production	1,000 Bushels	12,880	1982	242	1882	
ALL WHEAT						
Acres Harvested	1,000 Acres	444	1953	65	1880 & 81	1879
Yield	Bushels	45.0	1987	15.4	1919	
Production	1,000 Bushels	9,750	1986	1,139	1882	
WINTER WHEAT						
Acres Harvested	1,000 Acres	342	1953	120	1909	1909
Yield	Bushels	43.0	1987	12.7	1919	
Production	1,000 Bushels	8,100	1986	1,862	1924	
SPRING WHEAT						
Acres Harvested	1,000 Acres	160	1918	16	1972	1909
Yield	Bushels	57.0	1987	18.7	1919	
Production	1,000 Bushels	4,000	1918	704	1972	
ALL HAY						
Acres Harvested	1,000 Acres	686	1930	402	1909	1909
Yield	Tons	3.61	1981	1.51	1934	
Production	1,000 Tons	2,324	1987	679	1934	
ALFALFA HAY						
Acres Harvested	1,000 Acres	562	1930	359	1934	1922
Yield	Tons	4.10	1981 & 87	1.67	1934	
Production	1,000 Tons	1,988	1987	600	1934	
OTHER HAY						
Acres Harvested	1,000 Acres	180	1947	92	1934	1924
Yield	Tons	2.1	1987	.86	1934	
Utilized Prod.	1,000 Tons	336	1987	79	1934	
DRY EDIBLE BEANS						
Acres Harvested	1,000 Acres	20	1970	1	1934-35 & 77	1934
Yield Cleaned	Pounds	800	1957	200	1956,59,62,77	1954
Production Cleaned	1,000 Cwt.	91	1947	2	1977	1934
FALL POTATOES						
Acres Harvested	1,000 Acres	19.6	1943	4.3	1972	1882
Yield	Hundredweight	275	1986	45	1886	
Production	1,000 Cwt.	2,153	1946	405	1886	
SUMMER STORAGE ONIONS						
Acres Harvested	Acres	2,400	1944	550	1954 & 66	1939
Yield	Hundredweight	485	1987	200	1940	
Production	1,000 Cwt.	912	1990	150	1952	
APRICOTS						
Utilized Production	Tons	10,000	1957	0	1972	1929
SWEET CHERRIES						
Utilized Production	Tons	7,700	1968	0	1972	1938
PEARS						
Utilized Production	Tons	8,750	1954	200	1972	1909
APPLES						
Utilized Production	Mil. Pounds	63.0	1987	2.7	1889	1889
TART CHERRIES						
Utilized Production	Mil. Pounds	23.0	1983	1.3	1972	1938
PEACHES (Freestone)						
Utilized Production	Mil. Pounds	44.2	1922	1.5	1972	1899

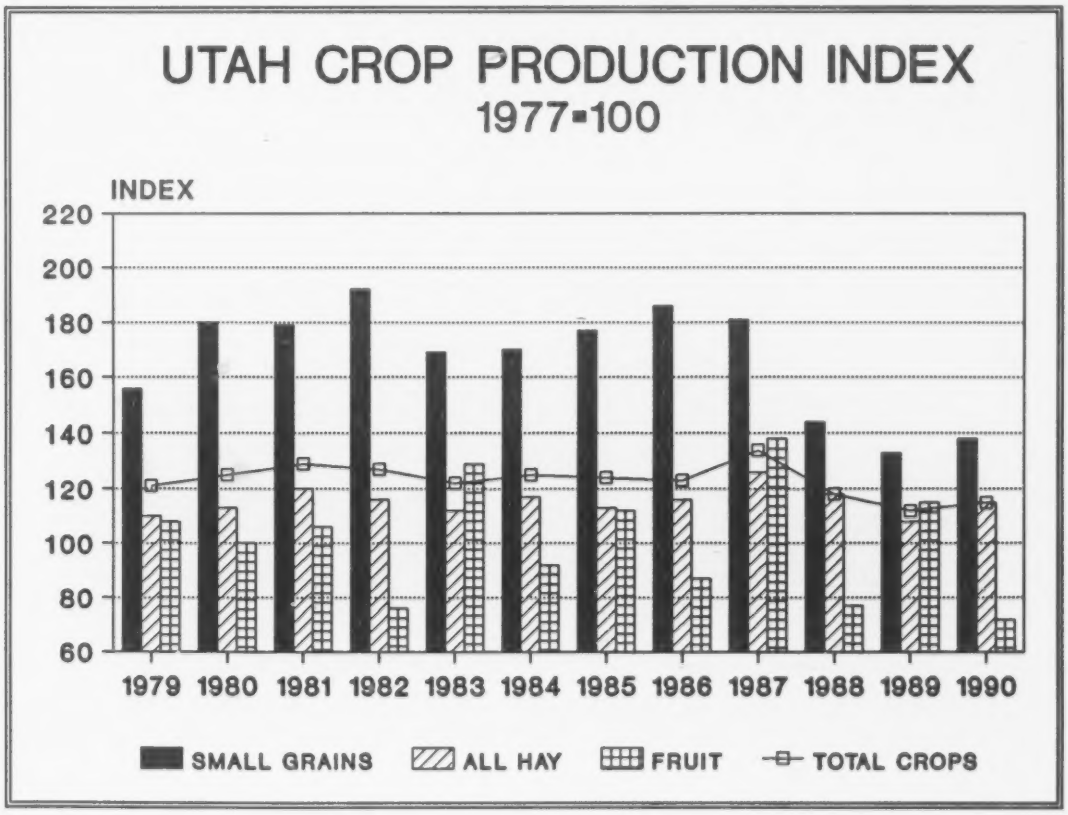
RECORD HIGHS AND LOWS: Utah Livestock, Poultry, Mink, and Honey.

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
Cattle & Calves						
Inventory Jan. 1	Thou. Hd.	950	1983	95	1867	1867
Calf Crop	Thou. Hd.	390	1975	129	1935	1920
Beef Cows Jan. 1 1/	Thou. Hd.	374	1983	107	1939	1920
Milk Cows Jan. 1 1/	Thou. Hd.	126	1945	14	1867	1867
Milk Production	Mil. Lbs.	1,171	1983	412	1924	1924
Cattle on Feed Jan. 1	Thou. Hd.	81	1963 & 66	33	1986	1959
Hogs and Pigs						
Inventory Dec. 1 2/	Thou. Hd.	196	1944	4	1867-69	1867
Sheep and Lambs						
Stock Sheep Inventory Jan. 1	Thou. Hd.	2,935	1931	167	1867	1867
Lamb Crop	Thou. Hd.	1,736	1930	380	1987-88	1924
Sheep & Lambs on Feed	Thou. Hd.	295	1937	18	1988	1920
Chickens						
Hens & Pullets of Laying Age Dec. 1	Thou. Hd.	2,750	1944	1,166	1965	1925
Egg Production Total for Year	Mil. Eggs	496	1987	142	1924	1924
Turkeys						
Raised	Thou. Hd.	4,061	1973	215	1935	1929
Honey						
Production	Thou. Lbs.	4,368	1963	848	1946	1913
Mink						
Pelts Produced	Thousand	780.0	1989	283.0	1973	1969

1/ Cows and heifers two years old and over prior to 1970, cows that have calved starting in 1970. 2/ January 1 estimates discontinued in 1969. December 1 estimates started 1969.

CROP PRODUCTION INDEX: Crops, by Commodity Grouping, Utah (1977 = 100).

Year	Small Grain	Hay	Fruit	Other Crops	Total Crops
			Percent		
1979	156	110	108	135	121
1980	180	113	100	132	125
1981	179	120	106	130	129
1982	192	116	76	134	127
1983	169	112	129	116	122
1984	170	117	92	129	125
1985	177	113	112	124	124
1986	186	116	87	112	123
1987	181	126	138	120	134
1988	144	118	77	113	118
1989	133	108	115	106	112
1990	138	115	72	114	115



Number of Farms

The number of farms in Utah in 1990 is estimated at 13,200, up 2 percent from 13,000 in 1989. Total land in farms for 1990 is 11.3 million acres, unchanged from last year. The average size of farms in Utah decreased to 856 acres from 869 acres last year.

Nationally, farm numbers for 1990 are forecast at 2.14 million, down 1 percent from 1989. Total land in farms for the United States is 988 million acres, down fractionally from 1989. Since the number of farms has declined at a faster rate than land in farms, the average size of farms has increased from 457 to 461 acres in 1990. This marks the 9th consecutive year that average farm size has increased at the national level.

FARM NUMBERS AND ACREAGE: Utah and United States, Selected Years 1/.

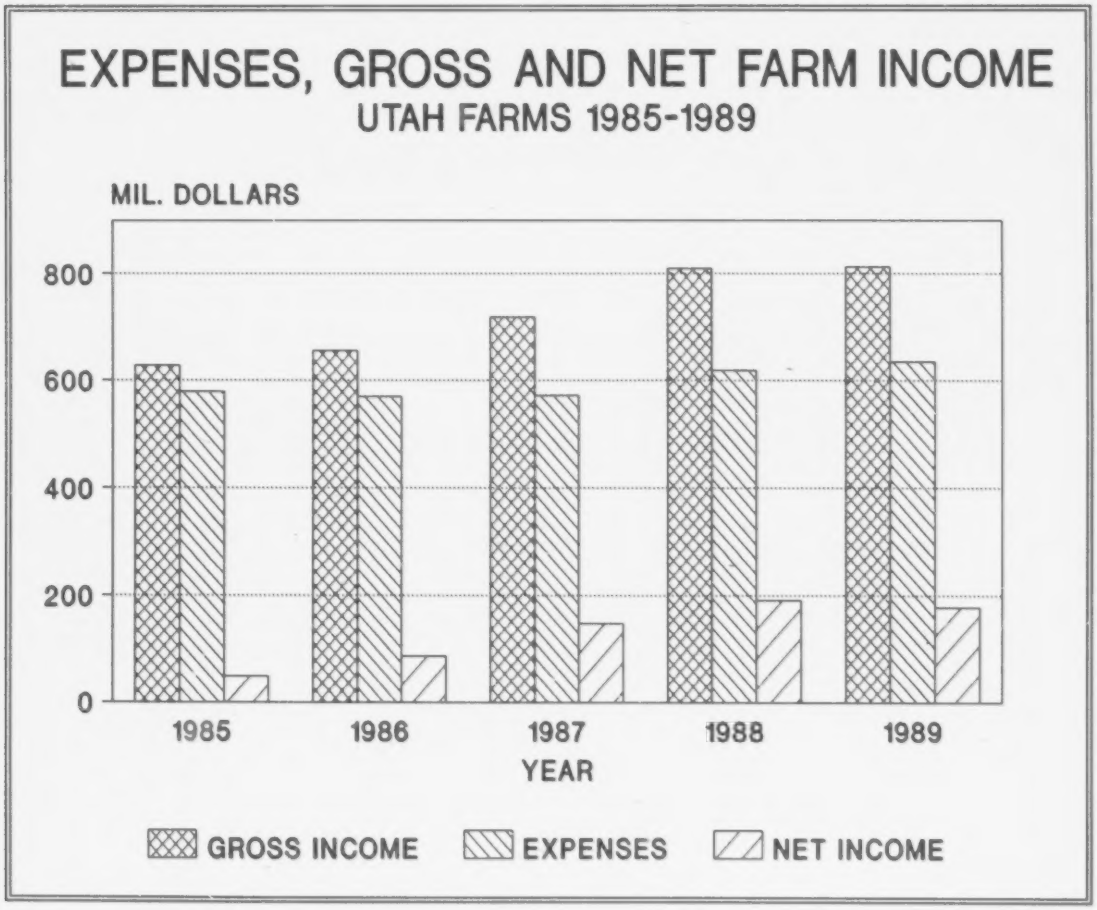
Year	UTAH			UNITED STATES		
	Farms	Land in Farms		Farms	Land in Farms	
		Average	Total		Average	Total
	Number	Acres	1,000 Acres	1,000 Farms	Acres	1,000,000 Acres
1850	926	51	47	1,449	203	294
1860	3,635	25	90	2,044	199	407
1880	9,452	69	656	4,009	134	536
1900	19,387	212	4,117	5,737	146	839
1920	25,662	197	5,050	6,448	148	956
1930	27,159	207	5,613	6,289	157	987
1940	28,500	354	10,100	6,097	174	1,061
1950	25,800	465	12,000	5,382	215	1,159
1960	19,000	716	13,600	3,963	297	1,176
1965	16,500	818	13,500	3,356	340	1,140
1970	14,100	936	13,200	2,949	374	1,102
1975 2/	12,600	1,000	12,600	2,521	420	1,059
1977	12,800	984	12,600	2,456	427	1,048
1978	12,900	977	12,600	2,436	429	1,045
1979	13,200	939	12,400	2,437	428	1,042
1980	13,500	919	12,400	2,440	426	1,039
1982	14,000	864	12,100	2,407	427	1,028
1983	14,000	857	12,000	2,379	430	1,023
1984	14,000	843	11,800	2,334	436	1,018
1985	13,900	835	11,600	2,293	441	1,012
1986	13,700	832	11,400	2,250	447	1,005
1987	13,600	831	11,300	2,213	451	999
1988	13,300	850	11,300	2,197	453	995
1989	13,000	869	11,300	2,171	457	991
1990 3/	13,200	856	11,300	2,143	461	988

1/ 1850-1931 from U.S. Census of Agriculture--1940-89 are USDA estimates. 2/ Starting in 1975, the figures are based on the "new definition" which is a place with annual sales of agricultural products of $1,000 or more. Prior to this definition "a farm" included places of 10 or more acres that had annual sales of agricultural products of $50 or more, and places of less than 10 acres that had annual sales of $250 or more. 3/ Preliminary.

Farm Income

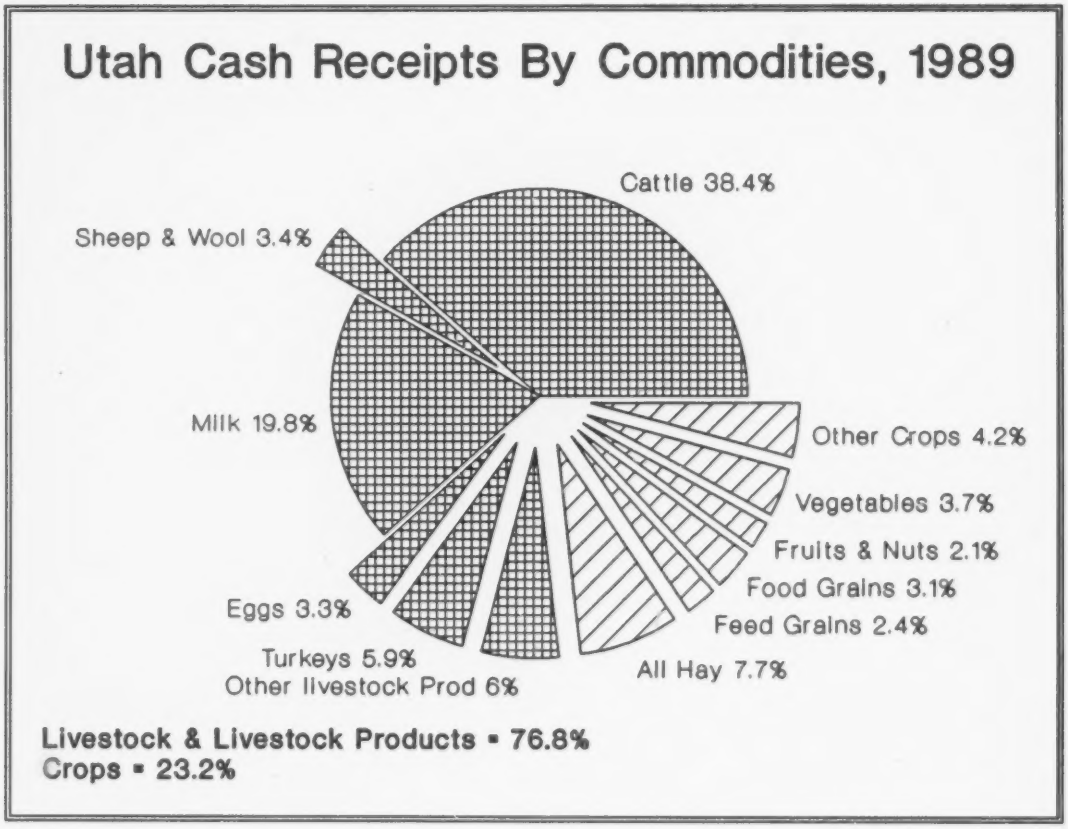
Marketing of Utah crops and livestock in 1990, produced cash receipts totaling $771.4 million, according to preliminary data released by USDA'S Economic Research Service. This was 3 percent above the 1989 level and marks the fourth consecutive record breaking year. Cash receipts from livestock of $603.2 million, were up 5 percent from 1989. Cash receipts from crops at $168.2 million, were down 3 percent from the previous year.

Gross farm income in Utah during 1989 was $811.9 million, up fractionally from the record high set in 1988. Net farm income of 177.8 million, compared with 191.0 million in 1988. Total production expenses during 1989 were $634.1 million, 3 percent above those of 1988.



Utah Cash Receipts by Commodities, 1989

The graph below displays the predominance of livestock in Utah's agricultural economy. Livestock accounted for 76.8 percent of farm cash receipts in 1989 -- up from 75.3 percent in 1988. Cattle was the single largest contributing commodity, producing 38.4 percent of the cash receipts. Milk was second, with 19.8 percent of the receipts, followed by turkeys with 5.9 percent. Hay was the largest cash producing crop, and was the third highest contributing commodity overall.



CASH RECEIPTS: by Commodity, Utah, 1987-90.

Commodity	1987		1988		1989		1/ 1990	
	1,000 Dollars	Percent	1,000 Dollars	Percent	1,000 Dollars	Percent	1,000 Dollars	Percent
ALL COMMODITIES	589,859	100.0	701,250	100.0	748,188	100.0	771,382	100.0
LIVESTOCK & PRODUCTS .	454,287	77.0	528,225	75.3	574,255	76.8	603,175	78.2
Meat Animals	228,956	38.8	275,160	39.2	310,088	41.4		
Cattle & Calves	204,227	34.6	255,265	36.4	287,077	38.4		
Sheep & Lambs	21,663	3.7	16,108	2.3	19,137	2.6		
Hogs	3,066	0.5	3,787	0.5	3,874	0.5		
Dairy Products	134,318	22.8	136,397	19.5	148,330	19.8		
Milk, Wholesale	124,355	21.1	127,020	18.1	139,986	18.7		
Milk, Retail	9,963	1.7	9,377	1.3	8,344	1.1		
Poultry/Eggs	56,783	9.6	70,499	10.1	69,616	9.3		
Turkeys	37,922	6.4	48,649	6.9	44,056	5.9		
Chicken Eggs	18,487	3.1	21,363	3.0	24,917	3.3		
Other Poultry	145	•	200	•	383	•		
Miscellaneous Livestock	34,230	5.8	46,169	6.6	46,221	6.2		
Wool	4,018	0.7	6,222	0.9	5,921	0.8		
Other Livestock	29,300	5.0	39,047	5.6	39,267	5.3		
CROPS	135,572	23.0	173,025	24.7	173,933	23.2	168,207	21.8
Food Grains	21,144	3.6	23,692	3.4	22,829	3.1		
Wheat	21,144	3.6	23,692	3.4	22,829	3.1		
Feed Crops	62,105	10.5	77,420	11.0	75,884	10.1		
Hay	46,328	7.9	59,871	8.5	57,756	7.7		
Barley	11,866	2.0	11,639	1.7	11,883	1.6		
Corn	3,353	0.6	5,161	0.7	5,446	0.7		
Vegetables	16,277	2.8	27,678	3.9	27,922	3.7		
Potatoes	6,679	1.1	7,140	1.0	8,296	1.2		
Onions	5,966	1.0	7,068	1.0	5,741	0.8		
Miscellaneous Vegetables ..	1,700	0.3	11,580	1.7	11,956	1.6		
Fruits/Nuts	10,654	1.8	11,638	1.7	15,348	2.1		
Apples	4,437	0.8	4,655	0.7	5,827	0.8		
Cherries	2,835	0.5	3,331	0.5	5,840	0.8		
Peaches	1,520	0.3	2,242	0.3	2,258	0.3		
Other Berries	380	0.1	280	•	162	•		
Miscellaneous Fruits & Nuts	125	•	210	•	212	•		
All Other Crops	25,392	4.3	32,597	4.6	31,950	4.2		
Other Seeds	3,000	0.5	2,300	0.3	1,398	0.2		
Other Field Crops	640	0.1	1,000	0.1	1,019	0.1		
Greenhouse/Nursery	16,000	2.7	24,000	3.4	24,484	3.3		

Source: State Income and Balance Sheet Statistics, Economic Research Service, USDA.
1/ Preliminary.
• Less Than 0.5 percent.
Individual dollar values and percents may not add to commodity grouping totals because some individual commodities with less than $1,000,000 are not published separately, or included in "other" or "miscellaneous".
Percents may not add to totals due to rounding.

FARM INCOME: Cash Receipts, Gross & Net Income from Farming, Utah, 1985-90 1/.

Item	1985	1986	1987	1988	1989	1990
			Million Dollars			
GROSS FARM INCOME 2/	626.8	654.9	717.9	808.9	811.9	
Cash Income	591.6	618.4	649.0	753.9	799.1	
Marketings Crops & Lvstk.	554.9	570.4	589.9	701.3	748.2	771.4
Government Payments	23.6	36.0	44.5	38.4	34.5	
Other Farm Income	13.2	12.0	14.6	14.3	16.4	
Non-Cash Income 3/	46.0	40.8	43.4	42.6	42.7	
Value of Inventory Adj.	-10.8	-4.2	25.5	12.4	-29.9	
TOTAL PRODUCTION EXPENSES 2/	578.5	568.6	571.3	617.9	634.1	
NET FARM INCOME 4/	48.3	86.3	146.6	191.0	177.8	
Cash Income 5/	591.6	618.4	649.0	753.9	799.1	
Cash Expenses 5/	467.9	471.8	477.6	525.3	540.6	
NET CASH INCOME	123.7	146.6	171.4	228.6	258.5	

1/ Source: Data for 1985-89 from "Economic Indicators of the Farm Sector: State Financial Summary, 1989." Economic Research Service, USDA--1990 data preliminary from "Economic Indicators of the Farm Sector." 2/ Includes operator households. 3/ Includes value of home consumption and rental value of operators' and hired labors' dwellings. 4/ Gross farm income (including value of inventory adjustment) less total production expenses. 5/ Excludes operator households.

FARM OPERATING EXPENSES: Utah, 1985-89.

Item	1985	1986	1987	1988	1989
			Million Dollars		
Feed	97.7	101.6	100.1	116.1	124.1
Livestock	28.2	37.5	45.5	72.6	54.7
Seed	6.8	7.1	7.4	7.4	8.4
Fertilizer & Lime	12.4	12.1	12.3	12.9	14.4
Pesticides	6.7	7.1	7.9	7.8	10.0
Fuel & Oil	32.8	28.0	27.0	26.7	28.8
Electricity	11.6	11.1	13.3	13.8	13.0
Repair & Maintenance	36.0	35.7	37.2	36.7	40.6
Other Miscellaneous 1/	73.0	75.0	77.7	83.9	94.6
Interest-Real Estate	57.0	52.7	44.3	41.0	39.6
Interest-Non-Real Estate	46.2	42.3	38.0	34.7	36.2
Contract & Hired Labor Expenses	46.6	47.0	51.3	53.1	56.3
Net Rent to Non-Operator Landlords	5.4	6.1	8.2	11.1	9.5
Capital Consumption	98.3	86.4	81.6	80.1	83.0
Property Taxes	19.7	18.9	19.6	20.1	20.9
TOTAL PRODUCTION EXPENSES 2/	578.5	568.6	571.3	617.9	634.1

1/ Includes machine hires and customwork expenses; marketing, storage, and transportation expenses; and miscellaneous expenses. Definitions and data sources for 1978 and later are not directly compatible with those of earlier years. 2/ Includes operator households.

FARM BALANCE SHEET: (Excluding Operator Households), Utah, December 31, 1985-89 1/.

Item	1985	1986	1987	1988	1989
	Million Dollars				
Assets					
Total Farm Assets	5,992.2	5,688.8	5,417.3	5,426.8	5,186.6
Real Estate 2/	4,931.1	4,613.8	4,218.9	4,206.7	3,968.9
Livestock & Poultry 3/	352.2	360.6	484.4	583.9	614.6
Machinery & Motor Vehicles 4/	432.2	429.9	426.0	425.5	438.0
Crops 5/	113.5	109.4	120.0	115.5	108.2
Purchased Inputs	4.3	6.9	8.3	12.4	13.6
Investments in Cooperatives	110.4	113.8	105.8	26.9	-12.3
Other Financial	48.6	54.4	54.0	55.9	55.6
Claims					
Total Farm Debt	988.9	863.2	760.2	748.0	693.8
Real Estate Debt. 6/	570.2	506.6	451.0	433.2	395.9
Non-Real Estate Debt 7/	418.7	329.6	309.3	314.8	297.9
Equity	5,003.4	4,852.6	4,657.1	4,678.8	4,492.8
Ratios			Ratio		
Equity/Assets	83.5	85.3	86.0	86.2	86.6
Debt/Equity	19.8	17.2	16.3	16.0	15.4
Debt/Assets, Total	16.5	14.7	14.0	13.8	13.4

1/ Data are for farms with sales of $1,000 or more annually. 2/ Excludes value of operator dwellings. 3/ Excludes horses, mules, and broilers. 4/ Includes only farm share value for trucks and autos. 5/ All non-CCC crops held on farms plus the value above loan rate for crops held under CCC. 6/ Excludes debt on operator dwellings, but includes CCC storage and drying facility loans. 7/ Excludes debt for non-farm purposes.

Source: "Economic Indicators of the Farm Sector: State Financial Summary," Economic Research Service, USDA.

Field Crops

Water year was 75 percent of normal statewide for the majority of the growing season, varying from 51 percent in the south, to 90 percent in the north. Soil moisture was rated 90 to 98 percent short most of the season by crop weather reporters. Weather was dry for winter wheat seeding in the fall of 1989. The cool spring and timely rains helped produce a better than expected crop. Irrigation supplies were generally adequate for spring seeded grains. Range and pastures were dry, and need for roughage was high. Some small grain and corn acreage was pastured, cut for hay or silage to maintain cow herds. Temperatures were normal or below normal through June, which reduced the heat stress on small grains experienced in 1989. July, August, and September temperatures were above normal. This, coupled with timely rains in the north and west districts brought corn along well to harvest. Hay yields varied widely between districts. Several fourth cuttings were reported in the north. Many did not cut more than twice in the south due to the water shortage. Several cut once, and pastured the remainder of the year.

Hay is still Utah's largest cash crop. While most of the crop is fed to Utah's livestock herds, a large portion was marketed as baled and cubed alfalfa to neighboring States and overseas. Alfalfa hay harvested was up 15,000 acres to 485,000 acres. Yields averaged 3.8 tons per acre, compared with 3.7 tons last year. Total production of 1.8 million tons was up 6 percent from 1989. Other hay harvested at 140,000 acres, compared with 130,000 acres harvested in 1989. Average yields of 2.0 tons per acre was up 0.1 ton from last year. Production of 280,000 tons was up 13 percent from the previous year. The 1990 all hay crop was valued at $173.4 million, which was up 5 percent from 1989.

Small grains: Planted acreage for wheat was down 3 percent, barley down 14 percent, but oats planted acreage was up 11 percent. Yields for wheat and barley were higher, but oats were lower. Winter wheat harvested acreage at 150,000 was down 3 percent from 1989, and yields were up 8.0 bushels per acre. Total production of 6.0 million bushels was 21 percent above 1989. Value of production dropped 10 percent to $16.8 million. Spring wheat harvested acres of 26,000 were up 18 percent from 1989. Yield of 45 bushels per acre was unchanged from last year. Production of 1.2 million bushels was above 990,000 bushels in 1989. Value of production of $3.4 million was down 7 percent from 1989. Barley acreage harvested at 105,000 was 9,000 acres below 1989. Production of 8.5 million bushels was down 6 percent, even though average yield of 81 bushels per acre was 2 bushels above the previous year. Oat production at 816,000 bushels was down 35 percent from buy's record high yield. Growers harvested 12,000 acres for grain, down 29 percent from last year. The value of production was down 37 percent to $1.3 million.

Corn acreage planted for all purposes at 65,000 acres, was equal to the 1989 planted acreage. Acreage harvested for grain at 19,000, compared with 20,000 acres a year ago. Yields were up 8 bushels from 1989 which equals the record high yield of 1987. Total grain production of 2.7 million bushels, was 1 percent above 1989. The crop was valued at $7.4, up 1 percent from last year. Total corn for silage production from 45,000 acres at 923,000 tons, compared with 836,000 tons in 1989. The value of the crop was $24.0 million, compared with $20.1 million in 1989.

UTAH USUAL PLANTING AND HARVESTING DATES: by Crop, and Principal Producing Areas

Crop	1990 Harvested Acreage (000)	Usual Planting Dates	Usual Harvesting Dates			Principal Producing Areas & Counties
			Begins	Most Active	Ends	
Barley:						
Spring 1/ . .	105	Mar 20 - Apr 25	Jul 20	Jul 25 - Aug 15	Sep 1	Statewide
Beans:						
Dry 1/	4.0	May 10 - Jun 1	Sep 1	Sep 10 - Sep 30	Oct 20	San Juan
Corn:						
Grain 1/ . . .	19	Apr 25 - Jun 5	Sep 10	Sep 25 - Oct 20	Dec 10	Utah, Box Elder
Silage 1/ . . .	45	May 1 - Jun 5	Sep 5	Sep 10 - Sep 25	Oct 10	Statewide
Hay:						
Alfalfa 1/ . .	485		Jun 1		Oct 25	Statewide
Other 1/ . . .	140		Jul 10		Aug 25	Statewide
Oats:						
Spring 1/ . .	12	Mar 20 - May 15	Jul 20	Jul 25 - Aug 10	Aug 25	Statewide
Onions, Summer						
Storage 2/ .	1.9	Mar 1 - Apr 30	Sep 20	Sep 25 - Oct 20	Oct 31	Davis, Weber, Salt Lake, Utah, Box Elder
Potatoes:						
Fall 3/	6.2	Apr 20 - Jun 15	Jul 15	Sep 15 - Oct 25	Nov 5	Statewide
Wheat:						
Winter 1/ . .	150	Aug 25 - Oct 20	Jul 5	Jul 15 - Aug 5	Aug 20	Millard, San Juan, Box Elder, Cache
Spring 1/ . .	26	Mar 20 - May 1	Aug 1	Aug 5 - Aug 25	Sep 1	Salt Lake, Utah, Juab

1/ USDA Agriculture Handbook 628, April 1984. 2/ USDA Agriculture Handbook 507, February 1977. 3/ USDA Agriculture Handbook 460, December 1973.

CORN PLANTED AND HARVESTED FOR SILAGE: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Planted for All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres		Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940	29	10	9.4	94	--	--
1950	31	21	11.0	231	7.50	1,732
1960	49	41	14.5	594	8.00	4,752
1970	63	49	18.0	882	9.80	8,644
1980	100	79	19.0	1,501	21.10	31,671
1984	82	62	20.5	1,271	23.00	29,233
1985	80	61	20.0	1,220	21.50	26,230
1986	72	52	19.5	1,014	20.00	20,280
1987	70	47	21.0	987	22.00	21,714
1988	70	47	20.0	940	23.00	21,620
1989	65	44	19.0	836	24.00	20,064
1990	65	45	20.5	923	26.00	23,998

CORN PLANTED AND HARVESTED FOR GRAIN: Acreage Harvested, Yield, Production, Sales, and Value, Utah, Selected Years.

Year	Planted for All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres		Bushels	1,000 Bushels	Dollars per Bushel	1,000 Dollars
1940	29	10	29.0	290	--	--
1950	31	5	50.0	250	--	--
1960	49	3	64.0	192	1.50	288
1970	63	10	90.0	900	1.40	1,260
1980	100	15	100.0	1,500	3.75	5,625
1984	82	16	118.0	1,888	3.15	5,947
1985	80	16	115.0	1,840	2.80	5,152
1986	72	18	125.0	2,250	2.16	4,860
1987	70	20	140.0	2,800	2.40	6,720
1988	70	22	124.0	2,728	3.15	8,593
1989	65	20	132.0	2,640	2.80	7,392
1990	65	19	140.0	2,660	2.80	7,448

WINTER WHEAT: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	----- 1,000 Acres -----		Bushel	1,000 Bushel	Dollars per Bushel	1,000 Dollars
1940	191	180	19.0	3,420	.63	2,155
1950	344	326	16.0	5,216	1.86	9,702
1960	193	181	18.5	3,348	1.71	5,725
1970	200	191	27.0	5,157	1.41	7,271
1980	260	242	31.0	7,502	3.95	29,633
1984	230	195	33.0	6,435	3.35	21,557
1985	230	220	32.0	7,040	3.00	21,120
1986	235	225	36.0	8,100	2.42	19,602
1987	180	170	43.0	7,310	2.50	18,275
1988	160	155	36.0	5,580	3.84	21,427
1989	165	155	32.0	4,960	3.75	18,600
1990	155	150	40.0	6,000	2.80	16,800

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

SPRING WHEAT: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	----- 1,000 Acres -----		Bushel	1,000 Bushel	Dollars per Bushel	1,000 Dollars
1940	68	66	31.0	2,046	.65	1,330
1950	84	82	32.0	2,624	1.86	4,881
1960	52	48	40.5	1,944	1.61	3,130
1970	23	21	44.0	924	1.36	1,257
1980	32	30	48.0	1,440	3.80	5,472
1984	39	36	45.0	1,620	3.52	5,702
1985	44	40	40.0	1,600	3.05	4,880
1986	35	33	50.0	1,650	2.48	4,092
1987	32	29	57.0	1,653	2.55	4,215
1988	24	22	54.0	1,188	3.71	4,407
1989	25	22	45.0	990	3.70	3,663
1990	30	26	45.0	1,170	2.90	3,393

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

ALL WHEAT: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	--- 1,000 Acres ---		Bushel	1,000 Bushel	Dollars per Bushel	1,000 Dollars
1940	259	246	22.2	5,466	.64	3,485
1950	428	408	19.2	7,840	1.86	14,583
1960	245	229	23.1	5,292	1.67	8,855
1970	223	212	28.7	6,081	1.40	8,528
1980	292	272	32.9	8,942	3.93	35,105
1984	269	231	34.9	8,055	3.38	27,259
1985	274	260	33.2	8,640	3.01	26,000
1986	270	258	37.8	9,750	2.43	23,694
1987	212	199	45.0	8,963	2.51	22,490
1988	184	177	38.2	6,768	3.82	25,834
1989	190	177	33.6	5,950	3.74	22,263
1990	185	176	40.7	7,170	2.82	20,219

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

BARLEY: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	--- 1,000 Acres ---		Bushel	1,000 Bushel	Dollars per Bushel	1,000 Dollars
1940	109	107	41.0	4,387	.46	2,018
1950	146	141	44.0	6,204	1.16	7,197
1960	160	147	43.5	6,394	1.00	6,394
1970	148	141	58.5	8,249	1.07	8,826
1980	162	148	79.0	11,692	2.88	31,116
1984	170	159	73.0	11,607	2.50	29,018
1985	172	159	74.0	11,766	2.28	26,826
1986	165	152	76.0	11,552	1.85	21,371
1987	152	142	83.0	11,786	1.84	21,686
1988	139	125	77.0	9,625	2.64	25,410
1989	134	114	79.0	9,006	2.23	20,083
1990	115	105	81.0	8,505	2.40	20,412

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

OATS: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres		Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940	46	39	39.0	1,521	.34	517
1950	56	51	45.0	2,295	.89	2,043
1960	29	23	46.0	1,058	.83	878
1970	24	17	60.0	1,020	.76	775
1980	26	15	61.0	915	1.95	1,784
1984	26	13	67.0	871	1.92	1,672
1985	26	13	71.0	923	1.65	1,523
1986	27	12	72.0	864	1.55	1,339
1987	28	14	69.0	966	1.70	1,642
1988	32	14	72.0	1,008	2.56	2,580
1989	36	17	74.0	1,258	1.70	2,139
1990	40	12	68.0	816	1.65	1,346

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

DRY BEANS: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres		Pounds	1,000 Cwt.	Dollars per Cwt.	1,000 Dollars
1940	9	9	500	40	3.55	142
1950	12	11	280	27	6.40	173
1960	8	6	300	18	7.10	128
1970	20	20	430	86	7.90	679
1980	12	11	380	42	28.00	1,176
1984	9.5	9.3	580	54	16.50	891
1985	8.5	8.4	480	40	18.00	720
1986	9.0	8.5	480	41	15.00	615
1987	6.8	6.7	700	47	15.30	719
1988	4.5	4.5	580	26	33.20	863
1989	5.6	5.0	300	15	31.70	476
1990	5.5	4.0	330	13	18.60	242

POTATOES: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price	Value of Production
	Planted	Harvested				
	---- 1,000 Acres ----		Cwt.	1,000 Cwt.	Dollars per Cwt.	1,000 Dollars
1940	13.0	12.9	102	1,316	.70	921
1950	13.5	13.0	147	1,911	1.75	3,344
1960	8.3	7.9	170	1,343	2.28	3,062
1970	6.0	5.9	170	1,003	2.38	2,387
1980	5.3	5.2	225	1,170	5.15	6,026
1984	6.5	6.4	270	1,728	5.05	8,726
1985	6.6	6.5	255	1,658	4.50	7,461
1986	6.4	6.4	275	1,760	4.45	7,832
1987	6.6	6.6	240	1,584	4.50	7,128
1988	6.8	6.6	245	1,617	5.20	8,408
1989	6.3	6.1	245	1,495	6.60	9,867
1990	6.3	6.2	265	1,643	5.70	9,365

POTATOES: Production, Farm Use, Sales, and Value, Utah, Selected Years.

Year	Production	Total Used for Seed 1/	Farm Disposition			Price per Cwt.	Value of Sales
			Used on Farms Where Grown		Sold		
			For Seed, Feed, & Household Use	Shrinkage, & Loss			
	----- 1,000 Hundredweight -----					Dollars	1,000 Dollars
1940	1,316	--	--	--	915	.70	640
1950	1,911	--	--	--	1,540	1.75	2,695
1960	1,343	118	119	117	1,107	2.28	2,524
1970	1,003	81	49	90	864	2.38	2,056
1980	1,170	149	31	119	1,020	5.15	5,253
1984	1,728	158	17	104	1,607	5.05	8,115
1985	1,658	154	71	171	1,416	4.50	6,372
1986	1,760	158	14	215	1,531	4.45	6,813
1987	1,584	156	22	111	1,451	4.50	6,530
1988	1,617	139	30	81	1,506	5.20	7,831
1989 2/ ...	1,495	156	51	136	1,308	6.60	8,633
1990 3/	1,643						

1/ Includes seed purchased and seed used on farms where grown. 2/ Preliminary. 3/ Available September 26, 1991.

ALL HAY: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production 2/
	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940	553	1.92	1,059	10.50	11,120
1950	534	1.91	1,020	22.20	22,644
1960	566	2.26	1,281	26.40	33,818
1970	563	2.91	1,638	25.00	40,950
1980	605	3.43	2,076	70.00	144,060
1983	595	3.45	2,055	77.00	158,235
1984	610	3.54	2,160	70.50	152,280
1985	605	3.44	2,084	67.00	139,628
1986	625	3.42	2,135	62.50	133,438
1987	645	3.60	2,324	67.00	155,708
1988	630	3.46	2,177	76.00	165,452
1989	600	3.31	1,986	82.50	165,723
1990	625	3.40	2,123	81.50	173,409

1/ Starting in 1989, the marketing year average price for all hay is derived from alfalfa and alfalfa mixtures, and other hay monthly prices and sales. 2/ Starting in 1989 the value of production is the sum of alfalfa and alfalfa mixtures, and all other hay.

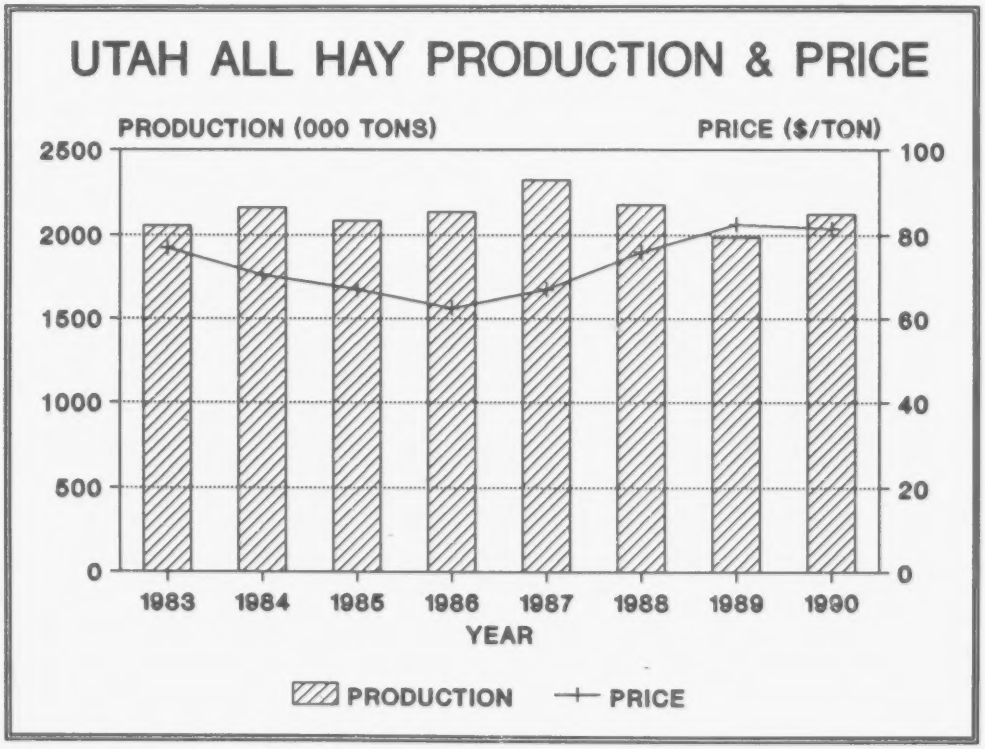
HAY, ALFALFA & ALFALFA MIXTURE: Acreage, Yield & Production, and Value, Utah, Selected Years.

Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940	431	2.10	905	NA	NA
1950	361	2.20	794	NA	NA
1960	439	2.55	1,119	NA	NA
1970	441	3.25	1,433	NA	NA
1980	470	3.90	1,833	NA	NA
1983	455	3.90	1,775	NA	NA
1984	470	4.00	1,880	NA	NA
1985	460	3.90	1,794	NA	NA
1986	470	3.90	1,833	NA	NA
1987	485	4.10	1,988	NA	NA
1988	490	3.90	1,911	NA	NA
1989	470	3.70	1,739	85.00	147,815
1990	485	3.80	1,843	83.00	152,969

HAY, ALL OTHER 1/: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940	122	1.26	154	NA	NA
1950	173	1.31	226	NA	NA
1960	127	1.28	162	NA	NA
1970	122	1.68	205	NA	NA
1980	135	1.80	243	NA	NA
1983	140	2.00	280	NA	NA
1984	140	2.00	280	NA	NA
1985	145	2.00	290	NA	NA
1986	155	1.95	302	NA	NA
1987	160	2.10	336	NA	NA
1988	140	1.90	266	NA	NA
1989	130	1.90	247	72.50	17,908
1990	140	2.00	280	73.00	20,440

1/ Includes clover, timothy, grain, other tame and wild hays.



GRAIN STOCKS: Wheat, Barley, Oats, and Corn - Stored Off Farm 1/ 2/ by Quarters; Utah, Selected Years.

Year Beginning	September 1	December 1	Following Year	
			March 1	June 1
	1,000 Bushels			
ALL WHEAT				
1960	7,116	5,867	4,369	2,105
1970	5,424	5,323	4,252	2,264
1980	7,527	5,898	4,748	3,881
1986	7,498	9,440	9,800	5,906
1987	9,242	8,888	8,386	5,569
1988	5,995	6,373	4,967	3,523
1989	4,807	4,926	5,736	4,102
1990	6,835	4,800	6,285	3/
BARLEY				
1960	1,653	1,087	848	477
1970	3,990	3,110	1,364	755
1980	5,563	3,356	1,585	856
1986	NA	NA	NA	1,320
1987	NA	NA	NA	1,210
1988	3,117	3,376	2,086	950
1989	3,535	2,477	1,565	848
1990	2,698	1,194	1,734	3/
OATS				
1986	NA	NA	NA	114
1987	NA	NA	NA	371
1988	NA	NA	NA	129
1989	NA	NA	177	97
1990	177	181	170	3/

Year Beginning	December 1	Following Year		
		March 1	June 1	September 1
	1,000 Bushels			
CORN				
1986	5,254	5,224	6,040	6,167
1987	8,137	6,991	7,190	2,619
1988	6,640	6,415	4,828	4,146
1989	3,066	1,517	561	169
1990	865	908	3/	–

NA = Not available. 1/ Includes stocks at mills, elevators, warehouses, terminals, processors, and CCC owned grain at bin sites. Utah on-farm estimates were discontinued starting April 1, 1986, but are included in the National total. 2/ Beginning September 1, 1986, quarterly reference dates were changed from October 1 to September 1; January 1 to December 1; and April 1 to March 1. 3/ Estimates available June 27, 1991.

Fruits

Utah's 1990 fruit crop production was below the previous year for all fruits except pears and peaches which were up slightly. Stage of development and location were factors in avoiding the spring freeze.

Apple production at 24 million pounds, was down 57 percent from 1989. Utilized production was 22 million pounds. Producers received an average price of 18.6 cents per pound, 6.6 cents above last year. The total value of utilized production at $4.1 million, was 37 percent lower than the previous year.

Apricot production decreased by 37 percent from 1989, to a level of 250 tons in 1990. Utilized production was 240 tons. Producers received an average of $460 per ton, $10 per ton less than the previous year. Total value of production was $110,000, down 33 percent from 1989.

Peach production at 12.0 million pounds, was up 9 percent from 1989. Utilized production at 11.5 million pounds, was 10 percent above the previous year. Average price per pound was 24.0 cents, bringing total value of the crop to $2.8 million, 22 percent higher than in 1989.

Pear production in Utah at 2,800 tons, was 8 percent higher than the year before. The average price received by growers was $380 per ton, $40 higher than 1989. Total value for the crop was $1,064,000, up 20 percent from year earlier.

Sweet Cherry producers harvested 1,400 tons, 300 tons less than 1989. Utilized production was 1,350 tons. Average price received by growers was $645 per ton, down $155 from the previous year. The total value of the crop was $871,000, down 32 percent from 1989.

Tart Cherry production was 15.5 million pounds, 35 percent lower than 1989. Utilized production was 13.5 million pounds. Tart cherry prices for the 1990 crop will not be published until July 9, 1991.

USUAL BLOOMING AND HARVESTING DATES: Fruits, Utah 1/

Fruit Crop	1990 Total Production	Usual Dates of Full Bloom	Usual Harvesting Dates			Principal Producing Areas & Counties
			Begins	Most Active	Ends	
	Tons					
Apricots	250	Apr 5 - 10	Jun 10	Jun 15 - Jul 30	Aug 5	Washington, Box Elder, Weber, Davis, Utah
Sweet Cherries	1,400	Apr 15 - 24	Jun 10	Jun 15 - Jul 15	Jul 20	Washington, Utah, Davis, Box Elder, Weber
Pears	2,800	Apr 25 - 30	Aug 5	Aug 10 - Sep 15	Sep 23	Washington, Utah, Cache, Weber, Salt Lake, Box Elder
	Mil Pounds					
Apples	24.0	May 5	Sep 19	Sep 19 - Oct 8	Nov 1	Utah, Box Elder, Weber, Davis, Salt Lake
Tart Cherries	15.5	Apr 24	Jul 10	Jul 15 - Jul 30	Aug 10	Utah, Box Elder, Weber, Davis, Salt Lake
Peaches	12.0	Apr 10 - 20	Jul 25	Aug 25 - Sep 15	Sep 20	Utah, Box Elder, Davis, Weber, Salt Lake

1/ USDA Agriculture Handbook 186, December 1975.

UTAH FRUIT: Production and Value, Utah, Selected Years.

Year	Apples	Peaches	Pears	Sweet Cherries	Tart Cherries	Apricots	Total
				Utilized Production - Tons			
1940	10,320	17,712	4,525	3,100	2,300	7,800	45,757
1950	6,768	2,688	875	440	800	400	11,971
1960	5,150	4,300	4,180	1,200	2,800	2,500	20,130
1970	13,750	6,500	4,300	2,300	4,900	1,300	33,050
1980	25,000	5,500	3,000	4,100	6,450	1,500	45,550
1984	22,500	6,000	3,100	3,850	6,000	300	41,750
1985	27,500	5,500	2,500	2,100	10,500	400	48,500
1986	17,000	5,500	2,200	2,160	9,250	300	36,410
1987	31,500	5,500	2,500	1,770	10,000	350	51,620
1988	19,500	5,900	2,000	1,940	4,800	400	34,540
1989	27,000	5,250	2,600	1,600	11,250	350	48,050
1990	11,000	5,750	2,800	1,350	6,750	240	27,890
				Value - 1,000 Dollars			
1940	339	590	172	248	101	212	1,662
1950	733	431	126	124	142	72	1,658
1960	496	587	451	488	389	242	2,653
1970	1,570	826	439	830	696	176	4,537
1980	5,472	1,925	900	2,464	2,438	540	13,739
1984	4,650	1,800	899	1,881	2,879	105	12,214
1985	6,650	1,870	735	1,624	4,832	152	15,863
1986	4,690	1,947	759	1,509	3,533	104	12,542
1987	4,635	1,760	680	1,181	1,654	147	10,057
1988	4,860	2,242	768	1,505	1,826	152	11,353
1989	6,458	2,258	884	1,280	2,716	165	13,761
1990	4,092	2,760	1,064	871	1/	110	2/ 8,897

1/ 1990 price and value for tart cherries will be published July 9, 1991. 2/ Excludes tart cherries.

COMMERCIAL APPLES 1/: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
			Million Pounds			Cents per Lb.	1,000 Dollars
1940	22.3	2.7	19.6	--	--	1.7	339
1950	13.5	--	13.5	--	--	5.4	733
1960	10.3	--	10.3	--	--	4.8	496
1970	28.0	.5	27.5	21.3	6.2	5.7	1,570
1980	52.0	2.0	50.0	42.0	8.0	10.9	5,472
1984	45.0	--	45.0	33.0	12.0	10.3	4,650
1985	57.0	2.0	55.0	44.5	10.5	12.1	6,650
1986	34.0	--	34.0	26.5	7.5	13.8	4,690
1987	68.0	5.0	63.0	36.0	27.0	7.4	4,635
1988	40.0	1.0	39.0	30.0	9.0	12.5	4,860
1989	56.0	2.0	54.0	40.0	14.0	12.0	6,458
1990	24.0	2.0	22.0	2/	2/	18.6	4,092

1/ Estimates through 1933 were for all apples. Since 1934 estimates are for commercial production including orchards with more than 100 trees. 2/ Estimates available July 9, 1991

APRICOTS: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh 1/	Processed		
			Tons			Dollars per Ton	1,000 Dollars
1940	7,800	--	7,800	--	--	27.20	212
1950	400	--	400	--	--	180.00	72
1960	2,500	--	2,500	--	--	96.60	242
1970	1,300	--	1,300	1,300	0	135.00	176
1980	1,500	--	1,500	1,500	0	360.00	540
1984	350	50	300	300	0	350.00	105
1985	450	50	400	400	0	380.00	152
1986	350	50	300	300	0	347.00	104
1987	450	100	350	350	0	420.00	147
1988	500	100	400	400	0	380.00	152
1989	400	50	350	350	0	470.00	165
1990	250	10	240	240	0	460.00	110

PEACHES: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Million Pounds					Cents per Lb.	1,000 Dollars
1940	35.4	--	35.4	--	--	1.7	590
1950	5.4	--	5.4	--	--	8.0	431
1960	8.6	--	8.6	--	--	6.8	587
1970	13.0	--	13.0	13.0	0	6.4	826
1980	11.0	--	11.0	11.0	0	17.5	1,925
1984	12.0	--	12.0	12.0	0	15.0	1,800
1985	11.5	0.5	11.0	11.0	0	17.0	1,870
1986	11.0	--	11.0	11.0	0	17.7	1,947
1987	12.0	1.0	11.0	11.0	0	16.0	1,760
1988	12.5	0.7	11.8	11.8	0	19.0	2,242
1989	11.0	0.5	10.5	10.5	0	21.5	2,258
1990	12.0	0.5	11.5	11.5	0	24.0	2,760

PEARS: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Tons					Dollars per Ton	1,000 Dollars
1940	4,525	--	4,525	--	--	38.00	172
1950	875	--	875	--	--	144.00	126
1960	4,380	200	4,180	--	--	108.00	451
1970	4,300	--	4,300	--	--	102.00	439
1980	3,000	--	3,000	3,000	0	300.00	900
1984	3,200	100	3,100	3,100	0	290.00	899
1985	2,500	--	2,500	2,500	0	294.00	735
1986	2,200	--	2,200	2,200	0	345.00	759
1987	2,600	100	2,500	2,500	0	272.00	680
1988	2,000	--	2,000	2,000	0	384.00	768
1989	2,600	--	2,600	2,600	0	340.00	884
1990	2,800	--	2,800	2,800	0	380.00	1,064

SWEET CHERRIES: Production, Use and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	---------- Tons ----------					Dollars per Ton	1,000 Dollars
1940	3,100	--	3,100	--	--	80.00	248
1950	440	--	440	--	--	282.00	124
1960	1,200	--	1,200	--	--	407.00	488
1970	2,300	--	2,300	2,030	270	361.00	830
1980	4,100	--	4,100	3,500	600	601.00	2,464
1984	4,200	350	3,850	1/	1/	489.00	1,881
1985	2,200	100	2,100	1/	1/	773.00	1,624
1986	2,160	--	2,160	1,300	860	699.00	1,509
1987	1,800	30	1,770	940	830	667.00	1,181
1988	2,000	60	1,940	1,430	510	776.00	1,505
1989	1,700	100	1,600	1,200	400	800.00	1,280
1990	1,400	50	1,350	500	850	645.00	871

1/ Data not published to avoid disclosure of individual operations.

TART CHERRIES: Production, Use and Value, Utah, Selected Years.

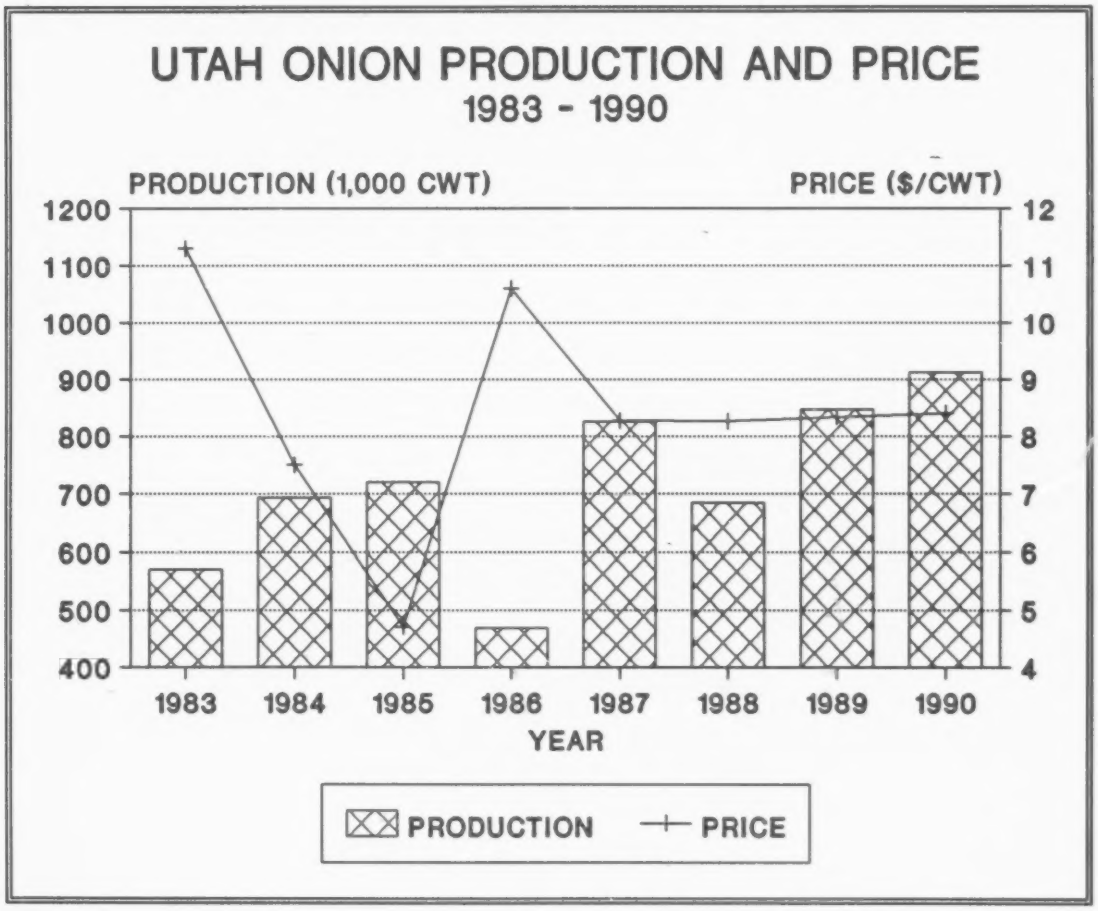
Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	---------- Million Pounds ----------					Cents per Pound	1,000 Dollars
1940	4.6	--	4.6	--	--	2.2	101
1950	1.6	--	1.6	--	--	8.9	142
1960	5.6	--	5.6	--	--	6.9	389
1970	9.8	--	9.8	.8	9.0	7.1	696
1980	13.0	.1	12.9	.3	12.6	18.9	2,438
1984	12.0	--	12.0	.1	11.9	24.0	2,879
1985	21.0	--	21.0	.2	20.8	23.0	4,832
1986	18.5	--	18.5	.6	17.9	19.1	3,533
1987	29.0	9.0	20.0	.2	19.8	8.3	1,654
1988	11.0	1.4	9.6	.1	9.5	19.0	1,826
1989	24.0	1.5	22.5	.1	22.4	12.1	2,716
1990	15.5	2.0	13.5	.1	13.4	1/	1/

Vegetables

Utah onion growers produced a record high 912,000 hundredweight (cwt.) of onions in 1990. This was 8 percent above the previous year's estimate. Growers planted 2,000 acres, and harvested 1,900 acres during the year, virtually the same levels as 1989. The yield per acre was at 480 cwt., 35 cwt., above the previous year.

Farmers received an average of $8.40 per cwt. for their onions, and total value of the crop was $6.8 million, up 8 percent from 1989.

Production of vegetables for processing in 1990 was 8,890 tons, up 22 percent from 1989. Total value of vegetables sold for processing was $1.1 million, down 6 percent from the previous year.



ONIONS: Summer Storage (Fresh Market), Acreage, Yield, Production and Value, Utah, Selected Years.

Year	Acreage		Yield per Acre	Production	Quantity Not Sold 1/	Sales	Value of Sales	
	Planted	Harvested					Per Cwt.	Total
	--- Acres ---		Cwt.	--- 1,000 Hundredweight ---			Dollars	1,000 Dollars
1940	--	1,100	200	220	38	182	.50	91
1950	1,150	1,100	270	297	83	214	1.80	385
1960	750	700	325	228	63	165	2.80	462
1970	1,000	1,000	300	300	55	245	2.75	674
1980	2,000	1,900	345	656	98	558	13.20	7,366
1984	2,300	2,200	315	693	119	574	7.50	4,305
1985	1,700	1,600	450	720	120	600	4.71	2,826
1986	1,500	1,400	335	469	61	408	10.60	4,325
1987	1,800	1,700	485	825	115	710	8.27	5,872
1988	1,900	1,800	380	684	101	583	8.26	4,816
1989	2,000	1,900	445	846	85	761	8.33	6,339
1990	2,000	1,900	480	912	100	812	8.40	6,821

1/ Includes shrinkage, waste, and cullage.

VEGETABLES FOR PROCESSING 1/: Acreage, Production, and Value, Utah, Selected Years.

Year	Acreage		Production	Value
	Planted	Harvested		
	------ Acres -----		Tons	1,000 Dollars
1940	--	22,460	83,900	1,526
1950	--	24,870	103,000	3,139
1960	12,770	11,080	72,040	2,235
1970	9,000	8,300	45,900	1,981
1980	4,900	4,890	19,900	2,245
1984	2,350	2,250	8,150	1,432
1985	2,400	2,400	10,390	1,559
1986	1,230	1,230	3,330	496
1987	2,430	2,330	9,210	1,285
1988	2,400	2,300	7,890	1,081
1989	2,500	2,400	7,270	1,156
1990	2,600	2,600	8,890	1,085

1/ Includes tomatoes, green peas, sweet corn, snap beans, green lima beans, table beets, and cucumbers for pickles.

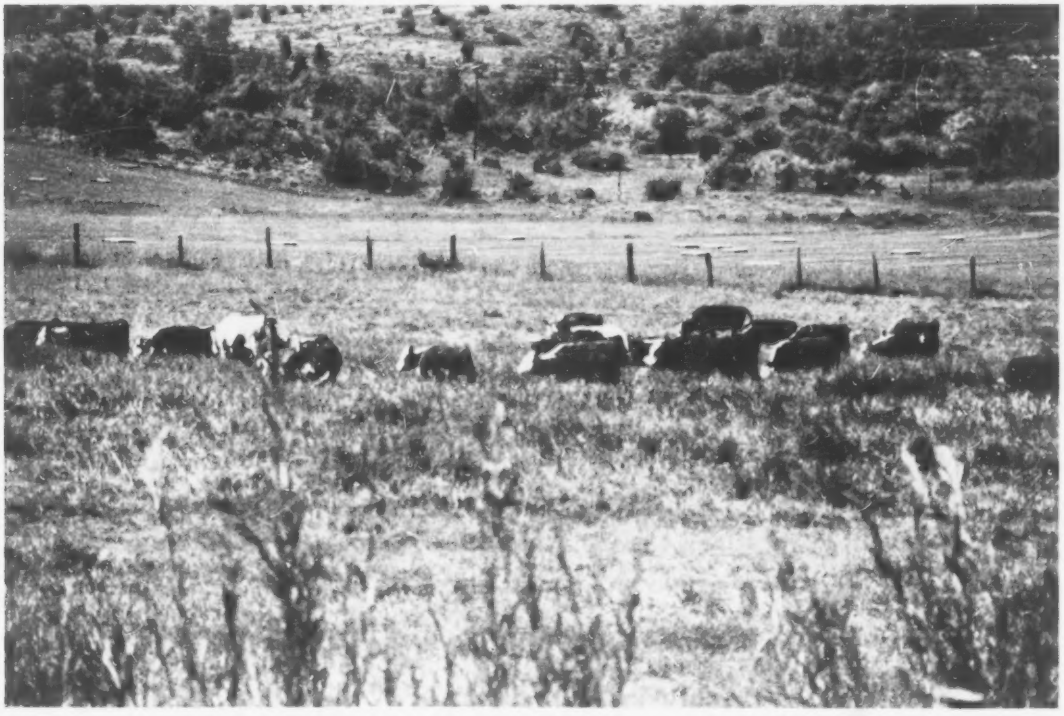
Cattle and Calves

Utah cattlemen had a total of 810,000 cattle and calves on farms on January 1, 1991, up 4 percent from the previous year. The all-cow inventory, at 401,000 head, was down 1 percent from the previous year. Beef cows at 321,000 head, dropped 1 percent from the 1990 level, while milk cows at 80,000, stayed the same as the previous year. Beef cow replacement heifers weighing 500 pounds or more were estimated at 58,000 head, a drop of 1,000 head from January 1, 1990. Milk cow replacements totaled 52,000 head, compared with 48,000 in 1990. Other heifers at 36,000, dropped 4,000 head from the previous year's level. The January 1, 1991 level for steers 500 pounds and over, was 109,000 head, an increase of 21,000 over the previous year. Bulls at 19,000 head, dropped 1,000 from 1990. Calves weighing less than 500 pounds were estimated at 135,000 head, up 11 percent from January 1, 1990.

Utah's 1990 calf crop totaled 360,000 head, the same level as last year. The calving rate was 89 percent, 3 percent above the previous year. Cattle and calves on full feed for slaughter totaled 52,000 head, an 11,000 head increase from 1990. The 1990 estimate of the number of cattle operations was 7,800, down 500 from the previous year.

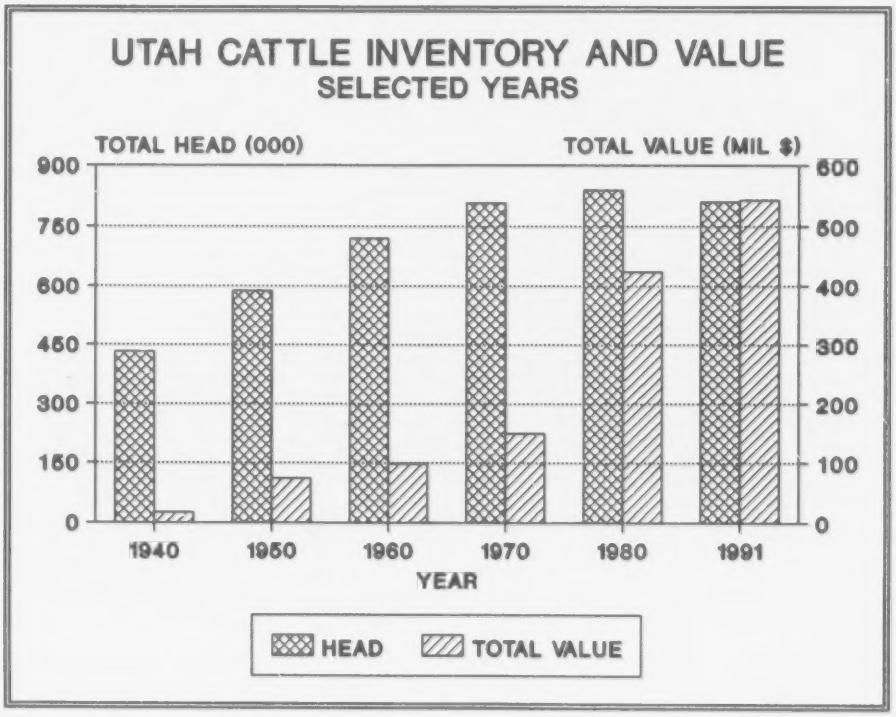
The average value per head was $670.00 on January 1, 1991, compared with $665.00 on January 1, 1990. The total inventory was valued at $542.7 million, up 5 percent from the 1990 level.

Beef production during 1990 totaled 342.1 million pounds, up 2 percent from the previous year. Marketings during the year at 377.7 million pounds, were down 7 percent from 1989. Total cash receipts for the year were $284.9 million, up 1 percent from the previous year. The average price per hundredweight (cwt.) of cattle was $73.80, a $6.80 increase form the 1989 average, while calves averaged $93.90 per cwt. during the year, up $4.50 from the previous year.



CATTLE: Farms, Inventory, and Value, Utah, January 1, Selected Years.

Year	Farms		Cattle on Farms January 1			
	With Cattle	With Milk Cows	Total Number	Value		On Feed For Market
				Per Head	Total	
			1,000 Head	Dollars	1,000 Dollars	1,000 Head
1940	--	--	432	38.20	16,502	--
1950	--	--	588	126.00	74,088	40
1960	--	--	719	136.00	97,784	61
1970	10,000	3,800	808	185.00	149,480	57
1980	10,000	2,600	840	505.00	424,200	60
1984	9,500	2,400	865	400.0	346,000	35
1985	9,300	2,300	800	395.00	316,000	40
1986	8,800	2,100	790	395.00	312,050	33
1987	8,600	2,000	770	410.00	315,700	36
1988	8,500	1,600	800	540.00	432,000	45
1989	8,300	1,500	800	610.00	488,000	48
1990	7,800	1,500	780	665.00	518,700	41
1991	--	--	810	670.00	542,700	52



CATTLE: Inventory by Classes and Age, Utah, January 1, Selected Years.

Year	All Cattle and Calves	For Milk			Beef Cattle				
		Cows and Heifers 2 Years	Heifers 1-2 Years	Heifer Calves	Cows 2 Years Plus	Heifers 1-2 Years	Calves	Steers 1 Year Plus	Bulls 1 Year Plus
	1,000 Head								
1940	432	103	25	32	115	34	77	37	9
1950	588	108	25	32	194	62	101	54	12
1960	719	108	31	35	252	65	154	65	9
1970 1/ ..	808	82	25	28	342	69	188	59	15

1/ Beginning with January 1, 1971, the classification estimates for cattle were changed from sex and age, to sex and weight -- see table below.

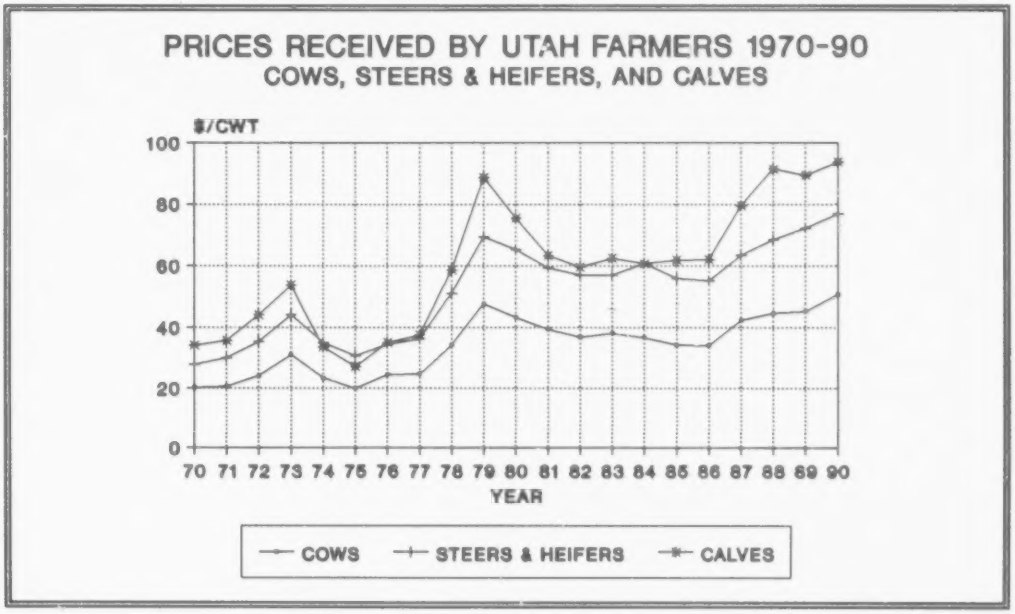
CATTLE: Inventory by Classes and Weight, Utah, January 1, Selected Years.

Year	All Cattle and Calves	All Cows & Heifers that have Calved			Heifers 500 Pounds & Over				Steers 500 Lbs. & Over	Bulls 500 Lbs. & Over	Steers Heifers & Bulls Under 500 Lbs
		Total	Beef Cows	Milk Cows	Beef Cow Replace-ments	Milk Cow Replace-ments	Other	Total			
	1,000 Head										
1970 ..	808	392	316	76	52	44	26	122	75	17	202
1980 ..	840	400	325	75	54	42	33	129	80	18	213
1984 ..	865	424	340	84	54	37	28	119	104	17	201
1985 ..	800	369	289	80	45	40	31	116	96	16	203
1986 ..	790	380	298	82	44	44	34	122	95	17	176
1987 ..	770	394	320	74	45	36	41	122	90	19	145
1988 ..	800	410	337	73	54	38	44	136	95	19	140
1989 ..	830	418	344	74	60	42	48	150	102	23	137
1990 ..	780	405	325	80	57	48	40	145	88	20	122
1991 ..	810	401	321	80	58	52	36	146	109	19	135

CALF CROP: Utah, Selected Years

Year	Cows & Heifers 2 yrs. & Older January 1	Cows That Have Calved January 1	Calf Crop	Calf Crop As Percent of Cows & Heifers 2+ January 1 1/ 2/	Calf Crop As Percent of Cows Calved January 1 1/ 3/
1940	218	--	174	80	--
1950	302	--	263	87	--
1960	360	--	317	88	--
1970	424	392	372	88	95
1980	--	400	358	--	90
1984	--	424	310	--	73
1985	--	369	320	--	87
1986	--	380	340	--	89
1987	--	394	365	--	93
1988	--	410	375	--	91
1989	--	418	360	--	86
1990	--	405	360	--	89

1/ Not strictly a calving rate. Figure represents calf crop expressed as percentage of number of: 2/ cows and heifers 2 years old and over on farms and ranches January 1 beginning of year; 3/ cows that have calved on hand January 1 beginning of year.



CATTLE AND CALVES: Inventory, Supply, and Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Calf Crop	Inshipments	Marketings 1/		Farm Slaughter 2/	Deaths		Inventory End of Year
				Cattle	Calves	Cattle & Calves	Cattle	Calves	
	1,000 Head								
1940	432	174	25	101	45	11	8	12	454
1950	588	263	41	139	98	12	16	15	612
1960	719	317	54	234	111	11	14	22	698
1970	808	372	50	213	140	4	17	24	832
1980	840	358	50	205	106	5	16	41	875
1984	865	310	63	310	60	3	20	45	800
1985	800	320	50	222	89	4	19	46	790
1986	790	340	70	254	113	3	18	42	770
1987	770	365	77	250	102	3	15	42	900
1988	800	375	90	313	101	2	14	35	800
1989	800	360	85	311	110	4	10	30	780
1990	780	360	89	301	75	5	12	26	810

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter at commercial establishments.

CATTLE AND CALVES: Production, Marketings and Income, Utah, Selected Years.

Year	Production 1/	Marketings 2/	Average Price per 100 Lbs.		Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
			Cattle	Calves				
	1,000 Pounds		Dollars		1,000 Dollars			
1940	105,545	103,170	6.80	8.90	--	7,478	198	7,676
1950	157,125	158,135	23.20	26.80	--	38,794	850	39,644
1960	217,665	257,715	18.40	23.40	41,993	49,373	1,172	50,545
1970	256,121	259,978	25.60	34.20	70,803	71,552	2,189	73,741
1980	257,490	251,370	60.30	75.50	161,267	156,938	7,518	164,456
1984	259,040	357,400	58.60	60.70	152,317	209,940	6,124	216,064
1985	260,660	282,975	53.90	61.90	142,356	155,193	5,121	160,314
1986	283,430	326,875	53.30	62.10	153,774	177,954	5,570	183,524
1987	301,765	319,570	61.80	79.40	192,893	204,227	5,729	209,956
1988	341,570	397,040	66.50	91.50	236,559	274,384	4,309	278,693
1989	335,220	404,810	67.00	89.40	234,027	281,325	5,574	286,899
1990	342,055	377,720	73.80	93.90	259,597	284,938	7,675	292,613

1/ Adjustments made for inshipments and changes in inventories. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipts from marketings of live cattle and sale of farm slaughter.

COMMERCIAL CATTLE AND CALF SLAUGHTER 1/: Number and Live Weight, Utah, Annual, Selected Years, and Monthly 1988-90.

Year	Cattle			Calves 2/		
	Number	Weight per Head	Total Live Weight	Number	Weight per Head	Total Live Weight
	1,000 Head	Pounds	1,000 Pounds	1,000 Head	Pounds	1,000 Pounds
1944 3/	102.9	–	–	42.5	–	–
1950	108.5	965	104,762	21.7	275	5,966
1960	212.2	994	210,924	12.7	316	4,008
1970	258.5	1,040	268,914	3.2	397	1,270
1980	191.9	1,093	209,880	0.2	338	56
1984	307.5	1,120	344,397	0.4	379	133
1985	347.6	1,149	399,389	0.5	372	197
1986	392.4	1,136	445,826	1.0	354	352
1987	427.4	1,174	501,800	0.2	308	76
1988	474.8	1,177	558,919	0.4	301	114
1989	490.2	1,174	575,874	1.5	247	372
1990	476.6	1,172	558,811	.5	233	113
1989						
January	40.6	1,177	47,767	0.2	345	69
February	38.6	1,161	44,779	0.1	208	27
March	44.6	1,161	51,829	0.2	207	42
April	37.8	1,152	43,532	0.4	201	83
May	43.0	1,124	48,283	4/	–	–
June	44.3	1,142	50,642	4/	–	–
July	40.2	1,165	46,874	4/	–	–
August	41.0	1,210	49,677	0.1	417	28
September	39.9	1,211	48,268	4/	–	–
October	42.0	1,221	51,315	0.1	231	33
November	40.7	1,183	48,122	0.2	218	37
December	38.0	1,179	44,789	0.1	333	32
1990						
January	39.4	1,205	47,546	.3	214	66
February	35.4	1,180	41,816	4/	–	–
March	41.5	1,185	49,159	4/	–	–
April	37.5	1,168	43,841	4/	–	–
May	40.7	1,149	46,707	–	–	–
June	42.8	1,134	48,485	4/	–	–
July	41.5	1,162	48,197	4/	–	–
August	43.4	1,184	51,346	4/	–	–
September	36.0	1,185	42,657	4/	–	–
October	41.5	1,181	49,047	4/	–	–
November	39.4	1,182	46,540	4/	–	–
December	37.6	1,157	43,471	4/	–	–

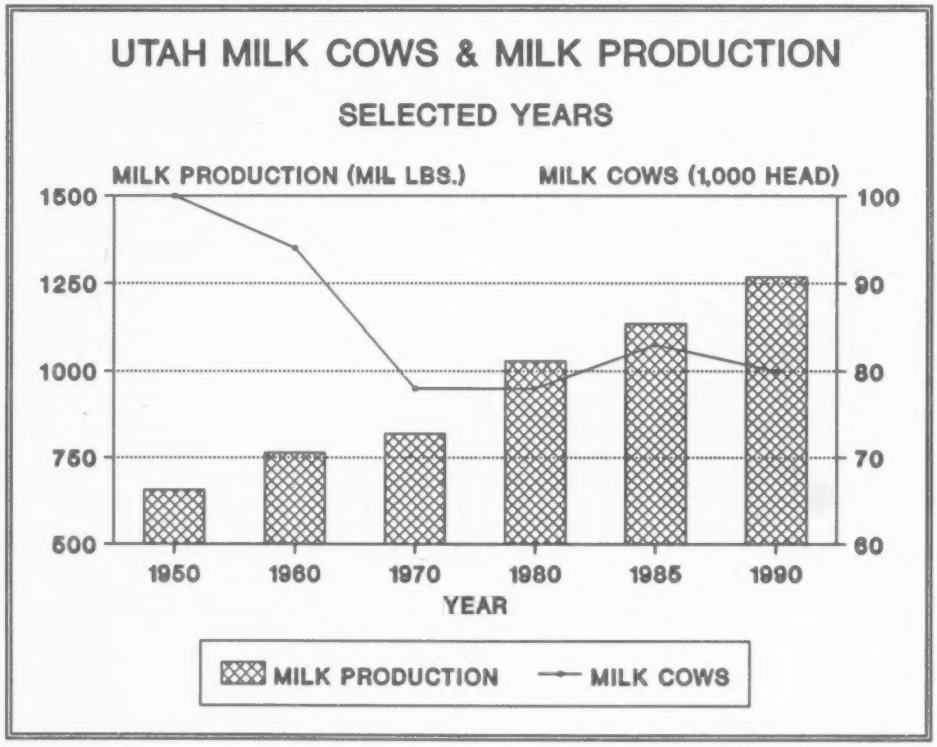
1/ Includes slaughter in Federally inspected plants, and in other slaughter plants, but excludes animals slaughtered on farms. 2/ Annual data are incomplete in years that monthly data were not published to avoid disclosing individual operations. 3/ First year of record. 4/ Not printed to avoid disclosing individual operations.

Dairy

Milk production in Utah reached a record high level of 1,267 million pounds in 1990, up 8 percent from the 1989 figure. Production per cow at 15,838 pounds increased 443 pounds from 1989, and marked the sixth straight year of increasing milk per cow. The 1990 milkfat per cow was 569 pounds, compared with 556 pounds the previous year. Milk per cow, and milkfat per cow were both new highs.

There were an estimated 1,500 farms with milk cows during 1990, the same level as 1989. Cash receipts from milk marketings during the year totaled $154.8 million, up 11 percent from 1989, and up 8 percent from the record set in 1983. The price per hundredweight of all milk was $12.90, compared with $12.60 received the previous year.

Utah's 1990 total cheese production was 70.2 million pounds, 8 percent above the previous year. American cheese at 40.8 million pounds, increased 8 percent from the 1989 level. Cheddar cheese accounted for 66 percent of the total American cheese produced. Production of Swiss cheese totaled 24.6 million pounds, a 5 percent increase from 1989. Swiss cheese accounted for 35 percent of the total cheese produced. Other types of cheese accounted for the remainder of the cheese produced. Ice cream production was at 7.7 million gallons, 3 percent below 1989. There were 21 dairy plants in Utah that produced 1 or more dairy products in 1990.



DAIRY: Milk Cows & Milk Production, by Months or Quarter, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total 1/
						Milk Cows 2/ (Thousand Head)							
1940 .	96	96	96	96	96	96	96	96	96	96	97	97	96
1950 .	100	100	100	100	100	100	100	100	100	100	99	99	100
1960 .	95	94	94	94	94	94	94	94	94	94	94	93	94
1970 .	76	76	77	77	78	78	78	78	79	79	80	80	78
1980 .	75	76	76	77	78	78	79	80	79	79	78	79	78
1984 .	84	82	81	81	81	82	82	81	80	80	80	80	81
1985 3/	--	--	80	--	--	83	--	--	85	--	--	83	83
1986 3/	--	--	83	--	--	84	--	--	83	--	--	78	82
1987 3/	--	--	76	--	--	79	--	--	79	--	--	76	78
1988 3/	--	--	75	--	--	77	--	--	78	--	--	76	77
1989 3/	--	--	74	--	--	76	--	--	77	--	--	75	76
1990 3/	--	--	80	--	--	81	--	--	80	--	--	80	80
						Milk per Cow 4 / (Pounds)							
1940 .	427	426	483	518	597	566	537	485	436	437	398	414	5730
1950 .	527	487	546	587	659	665	625	557	479	479	451	483	6550
1960 .	660	640	710	720	770	735	700	670	630	650	610	635	8130
1970 .	840	800	900	900	940	920	920	910	860	860	810	840	10500
1980 .	1080	1010	1120	1115	1195	1150	1190	1140	1075	1075	1015	1040	13179
1984 .	1010	960	1060	1070	1150	1130	1160	1110	1060	1060	990	1025	12872
1985 5/	--	--	3175	--	--	3500	--	--	3630	--	--	3415	13675
1986 5/	--	--	3434	--	--	3667	--	--	3590	--	--	3410	14110
1987 5/	--	--	3539	--	--	3684	--	--	3646	--	--	3592	14372
1988 5/	--	--	3613	--	--	3935	--	--	3897	--	--	3803	15156
1989 5/	--	--	3703	--	--	3947	--	--	3948	--	--	3893	15395
1990 5/	--	--	3750	--	--	4025	--	--	4038	--	--	3975	15838
						Milk Produced (Million Pounds)							
1940 .	41	41	46	50	57	54	52	47	42	42	38	40	550
1950 .	53	49	55	59	60	66	62	56	48	48	45	48	655
1960 .	63	60	67	68	72	69	66	63	59	61	57	59	764
1970 .	64	61	69	69	73	72	72	71	68	68	65	67	819
1980 .	81	77	85	86	93	90	94	91	85	85	79	82	1028
1984 .	85	79	86	87	93	93	95	90	85	85	79	82	1039
1985 6/	--	--	253	--	--	291	--	--	308	--	--	283	1135
1986 6/	--	--	285	--	--	308	--	--	298	--	--	266	1157
1987 6/	--	--	269	--	--	291	--	--	288	--	--	273	1121
1988 6/	--	--	271	--	--	303	--	--	304	--	--	289	1167
1989 6/	--	--	274	--	--	300	--	--	304	--	--	292	1170
1990 6/	--	--	300	--	--	326	--	--	323	--	--	318	1267

1/ Milk cows, average number during year. 2/ Includes dry cows, excludes heifers not yet fresh. 3/ Average for quarter. 4/ Excludes milk sucked by calves. 5/ Quarterly milk production divided by quarterly average of milk cows. 6/ Total produced for quarter.

DAIRY: Farms, Milk Production and Milkfat, Utah, Selected Years.

Year	Farms with Milk Cows	Number of Milk Cows on Farms 1/	Production of Milk & Milkfat				
			Milk per Cow		Percentage of Fat in All Milk Produced	Total	
			Milk	Milkfat		Milk	Milkfat
		1,000	--- Pounds ---		Percent	--- Million Pounds ---	
1940	--	96	5,730	215	3.75	550	21
1950	--	100	6,550	246	3.75	655	25
1960	--	94	8,130	297	3.65	764	28
1970	3,800	78	10,500	382	3.64	819	30
1980	2,600	78	13,179	468	3.55	1,028	36.5
1984	2,300	81	12,827	455	3.55	1,039	36.9
1985	2,100	83	13,675	485	3.55	1,135	40.3
1986	1,900	82	14,110	502	3.56	1,157	41.2
1987	1,700	78	14,372	516	3.59	1,121	40.2
1988	1,600	77	15,156	549	3.62	1,167	42.2
1989	1,500	76	15,395	556	3.61	1,170	42.2
1990	1,500	80	15,838	569	3.59	1,267	45.5

1/ Average number on farms during year, excluding heifers not yet fresh.

MILK DISPOSITION: Milk Used and Marketed by Farmers, Utah, Selected Years.

Year	Milk Used on Farms Where Produced				Milk Marketed by Farmers			
	Fed to Calves	Consumed as Fluid Milk and Cream	Used for Farm-Churned Butter	Total	Sold to Plants and Dealers		Sold Directly to Consumers	Total
					As Whole Milk	As Farm Separated Cream		
	Million Pounds							
1940	17	61	22	100	296	116	35	1/ 450
1950	22	51	13	86	515	26	28	569
1960	18	33	5	56	675	11	22	708
1970	9	18	--	27	740	2	50	792
1980	9	9	--	18	985	--	25	1,010
1984	18	5	--	23	980	--	36	1,016
1985	18	4	--	22	1,070	--	43	1,113
1986	20	4	--	24	1,090	--	43	1,133
1987	21	4	--	25	1,045	--	51	1,096
1988	20	4	--	24	1,095	--	48	1,143
1989	17	3	--	20	1,111	--	39	1,150
1990	22	3	--	25	1,200	--	42	1,242

1/ Includes 3,000,000 for farm churned butter sold.

MILK & CREAM SOLD: Quantity, Price & Cash Receipts, Utah, Selected Years.

Year	Milk Sold to Plants & Dealers				Cream Sold to Plants and Dealers			Milk Sold Directly to Consumers		
	Quantity	Percent Fluid Grade 1/	Price per 100 Lb.	Cash Receipts	Quantity Milkfat	Price per Lb. Fat	Cash Receipts	Quantity	Price per Quart	Cash Receipts
	Million Pounds	Percent	Dollars	1,000 Dollars	1,000 Pounds	Cents	1,000 Dollars	1,000 Quarts	Cents	1,000 Dollars
1940 ...	296	--	1.45	4,292	4,330	30	1,299	16,000	7.7	1,232
1950 ...	515	--	3.69	19,004	970	62	601	13,000	16.0	2,080
1960 ...	675	--	4.07	27,472	400	55	220	10,000	18.0	1,800
1970 ...	740	71	5.48	40,552	71	59	42	23,256	21.5	5,000
1980 ...	985	70	12.50	123,125	--	--	--	11,628	38.0	4,419
1984 ...	980	66	12.90	126,420	--	--	--	16,744	43.0	7,200
1985 ...	1,070	74	12.00	128,400	--	--	--	20,000	43.0	8,600
1986 ...	1,090	78	11.80	128,620	--	--	--	20,000	43.0	8,600
1987 ...	1,045	82	11.90	124,355	--	--	--	23,721	42.0	9,963
1988 ...	1,095	80	11.60	127,020	--	--	--	22,326	42.0	9,377
1989 ...	1,111	82	12.60	139,986	--	--	--	18,140	46.0	8,344
1990 ...	1,200	80	12.90	154,800	--	--	--	19,535	51.0	9,963

1/ Percentage of milk sold to plants and dealers eligible for fluid use. 2/ Also includes milk produced by institutional herds.

MILK & CREAM: Marketings, Used on Farm, Income, and Value, Utah, Selected Years.

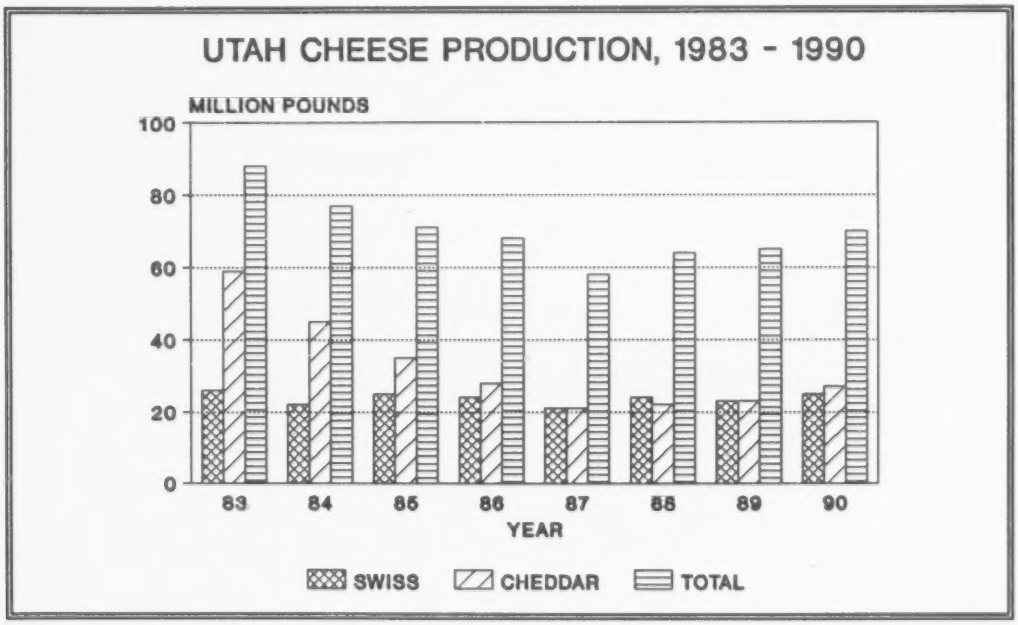
Year	Combined Marketings of Milk & Cream				Used for Milk, Cream, and Butter on Farms Where Produced		Gross Farm Income from Milk 1/	Farm Value of Milk Produced 2/
	Milk Utilized	Average Returns		Cash Receipts from Marketings	Milk Utilized	Value		
		Per 100 Pounds Milk	Per Pound Milkfat					
	Million Pounds	Dollars	Dollars	1,000 Dollars	Million Pounds	1,000 Dollars	1,000 Dollars	1,000 Dollars
1940	450	1.53	.41	6,868	83	1,270	8,138	8,423
1950	570	3.81	1.02	21,717	63	2,400	24,117	24,956
1960	708	4.17	1.14	29,492	38	1,585	31,077	31,859
1970	792	5.76	1.58	45,594	18	1,037	46,631	47,174
1980	1,010	12.63	3.56	127,544	9	1,137	128,680	129,817
1984	1,016	13.15	3.70	133,620	5	658	134,278	136,645
1985	1,113	12.31	3.47	137,000	4	492	137,492	139,708
1986	1,133	12.11	3.40	137,220	4	484	137,704	140,127
1987	1,096	12.26	3.41	134,318	4	490	134,808	137,382
1988	1,143	11.93	3.30	136,397	4	477	136,874	139,261
1989	1,150	12.90	3.57	148,330	3	387	148,717	150,910
1990	1,242	13.27	3.70	164,763	3	398	165,161	168,079

1/ Cash receipts from marketings of milk and cream, plus value of milk used for home consumption. 2/ Includes value of milk fed to calves.

BUTTER AND CHEESE: Production, Utah, Selected Years.

Year	Butter	Cheese				
		American			Swiss 1/	Total 2/
		Cheddar	Other	All		
		1,000 Pounds				
1940	10,426	--	--	4,496	0	4,496
1950	5,834	--	--	6,901	5,163	12,246
1960	7,106	5,460	608	6,068	5,890	11,958
1970	8,411	18,279	3,911	22,190	10,776	32,966
1980	5,592	40,554	9,709	50,263	21,144	71,659
1984	6,369	44,571	8,230	52,801	22,455	76,666
1985	8,315	35,343	8,939	44,282	24,729	71,088
1986	7,936	28,368	12,667	41,035	23,841	68,450
1987	9,007	21,098	11,999	33,097	21,000	58,017
1988	10,686	21,678	14,219	35,897	24,031	63,563
1989	3/	22,842	14,874	37,716	23,320	65,042
1990	3/	26,814	13,953	40,767	24,598	70,204

1/ Data for years with less than 3 plants published by permission of the firms involved. 2/ Excludes cottage cheese, but includes cheese other than American and Swiss. 3/ Not published to avoid disclosing individual operations.



COTTAGE CHEESE & DRY WHEY: Production, Utah, Selected Years.

Year	Cottage Cheese		Dry Whey		
	Curd 1/	Creamed	Human Food	Animal Feed	Total
	1,000 Pounds				
1940	670	966	--	--	--
1950	2,476	3,563	--	--	--
1960	4,796	7,458	--	--	--
1970	5,236	8,795	2/	2/	12,190
1980	5,427	3/ 8,980	20,309	520	20,829
1984	5,651	3/ 9,307	14,514	1,175	15,689
1985	5,598	3/ 9,408	18,949	487	19,436
1986	4,688	3/ 7,959	18,298	416	18,714
1987	4,131	3/ 6,776	16,497	326	16,823
1988	4,314	3/ 107	2/	2/	--
1989	2/	2/	2/	2/	--
1990	2/	2/	2/	2/	--

1/ Mostly used for processing into creamed or lowfat cottage cheese. 2/ Not published to avoid disclosure of individual operations. 3/ Includes any lowfat production.

FROZEN PRODUCTS: Production, Utah, Selected Years.

Year	Ice Cream 1/	Ice Milk			Sherbet 1/	Water Ices
		Hard	Soft	Total		
	1,000 Gallons					
1940	1,235	--	--	201	60	--
1950	2,532	--	--	578	76	--
1960	3,849	563	771	1,334	350	181
1970	4,456	1,189	1,547	2,736	449	292
1980	8,198	804	2,078	2,882	593	127
1984	8,108	427	2,024	2,451	507	1,261
1985	8,712	442	2,051	2,493	603	2/
1986	9,447	468	1,956	2,424	715	2/
1987	9,824	527	1,980	2,507	660	1,050
1988	10,639	1,678	2,204	3,882	588	2/
1989	7,969	1,373	2,319	3,692	525	2/
1990	7,728	1,124	2,290	3,414	559	2/

1/ Essentially all hard frozen. 2/ Not published to avoid disclosure of individual plants.

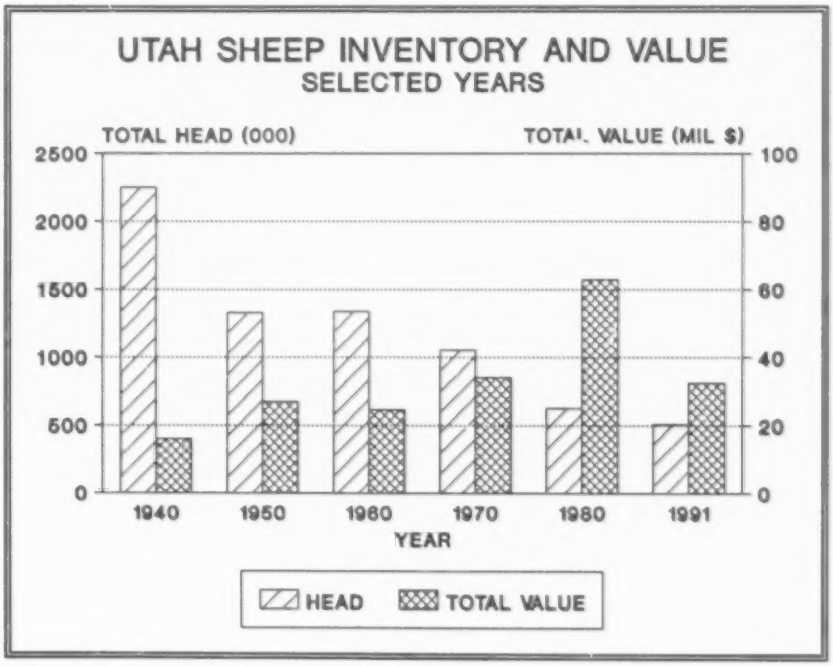
Sheep and Wool

Utah sheep and lamb inventory on January 1, 1991, totaled 508,000 head, down fractionally from the previous year. Inventory of stock sheep and lambs at the beginning of 1991, was 480,000 head, a 1 percent decrease from the 1990 level. Ewes one year old and older totaled 403,000 head, down 4,000 from a year earlier. Rams and wethers over one year of age totaled 12,000 head, down 1,000 from January 1, 1990. Ewe lambs 3 months old and older were at 58,000 head, the same level as 1990. Ram lambs were at 7,000 head, also the same level as the previous year. Sheep and lambs on feed for slaughter totaled 28,000 head, compared with 24,000 a year earlier. The 1990 lamb crop was estimated at 430,000 head, unchanged from the previous year.

There were an estimated 2,100 sheep operations in 1990, the same number as in 1989. The January 1, 1991, sheep and lamb inventory had an average value per head of $64.00, down sharply from the 1990 level of $94.00. The total value of Utah's sheep inventory was $32.5 million, down 32 percent from the previous year.

Cash receipts during 1990, totaled $15.6 million, 18 percent below the 1989 level. Marketings of sheep and lambs totaled 36.7 million pounds, up 3 percent from the previous year. The average sheep price during 1990 was $18.70 per hundredweight (cwt.), 50 cents below the 1989 average. Lambs averaged $48.50 per cwt., $12.00 below the previous year.

Wool production totaled 4.72 million pounds during 1990, up 3 percent from the 1989 production level. Fleece weight at 10.2 pounds, was the same as the previous year.



SHEEP: Farms and Number and Value of Sheep on Farms, Utah, January 1, Selected Years.

Year	Farms With Sheep	Sheep on Farms January 1				
		Number	Value		Stock Sheep Number	Sheep & Lambs on Feed
			Per Head	Total		
		1,000 Head	Dollars	1,000 Dollars	1,000 Head	
1940	--	2,248	--	15,895	2,095	153
1950	--	1,329	--	27,028	1,269	60
1960	--	1,336	--	24,461	1,249	87
1970	3,000	1,053	--	33,998	978	75
1980	2,400	625	100.50	62,813	595	30
1984	2,600	568	56.00	31,808	540	28
1985	2,500	515	63.50	32,703	490	25
1986	2,300	484	70.50	34,122	460	24
1987	2,200	464	83.00	38,512	440	24
1988	2,100	478	95.50	45,649	460	18
1989	2,100	503	84.50	42,504	480	23
1990	2,100	509	94.00	47,846	485	24
1991	1/	508	64.00	32,512	480	28

1/ Estimate published with January 1, 1992 sheep inventory.

STOCK SHEEP: Inventory by Classes, Utah, January 1, Selected Years.

Year	All Stock Sheep	Lambs		Sheep One Year & Over	
		Ewes	Wethers & Rams	Ewes	Rams & Wethers
	1,000 Head				
1940	2,095	310	23	1,706	56
1950	1,269	165	5	1,066	33
1960	1,249	144	6	1,065	34
1970	978	125	7	821	25
1980	595	80	9	491	15
1984	540	60	4	465	11
1985	490	54	4	420	12
1986	460	45	3	400	12
1987	440	50	4	375	11
1988	460	52	6	390	12
1989	480	57	6	405	12
1990	485	58	7	407	13
1991	480	58	7	403	12

LAMB CROP: Utah, Selected Years.

Year	Breeding Ewes One Year and Older January 1	Lamb Crop 1/	
		Number	As Percent of Ewes One Year and Older 2/
	--- 1,000 Head ---		Percent
1940	1,706	1,365	80
1950	1,066	895	84
1960	1,065	927	87
1970	821	780	95
1980	491	476	97
1983	476	440	92
1984	465	430	92
1985	420	420	100
1986	400	400	100
1987	375	380	101
1988	390	380	97
1989	405	430	106
1990	407	430	106

1/ Lamb crop defined as lambs marked, docked or branded. 2/ Not strictly a lambing rate. Percent represents lambs saved expressed as a percent of ewes one year old and older on hand at beginning of year.

WOOL: Production and Value, Utah, Selected Years

Year	All Sheep Shorn 1/	Weight per Fleece	Shorn Wool Production	Average Price per Pound 2/	Value 3/
	1,000 Head	Pounds	1,000 Pounds	Dollars	1,000 Dollars
1940	1,990	9.3	18,507	.27	4,997
1950	1,180	9.4	11,092	.58	6,433
1960	1,203	9.9	11,950	.39	4,660
1970	985	9.8	9,637	.32	3,084
1980	575	9.9	5,670	.90	5,103
1983	556	10.3	5,739	.57	3,271
1984	548	9.9	5,427	.84	4,559
1985	498	9.6	4,793	.61	2,924
1986	468	10.0	4,668	.66	3,081
1987	440	9.8	4,320	.93	4,018
1988	467	9.8	4,575	1.36	6,222
1989	452	10.2	4,598	1.30	5,977
1990	464	10.2	4,723	.72	3,401

1/ Includes sheep shorn at commercial feeding yards. 2/ Monthly price weighted by monthly sales of wool. 3/ Production multiplied by annual average price.

SHEEP & LAMBS: Inventory Numbers, Lamb Crop & Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Lambs Saved	Inshipments	Marketing 1/		Farm Slaughter 2/	Deaths		Inventory End of Year
				Sheep	Lambs		Sheep	Lambs	
	1,000 Head								
1940	2,248	1,365	40	127	894	38	236	110	2,248
1950	1,329	895	92	39	668	22	125	70	1,392
1960	1,336	927	54	59	759	21	125	76	1,277
1970	1,053	780	100	74	646	25	94	85	1,009
1980	625	476	30	20	346	9	56	50	650
1984	568	430	12	71.5	335.5	6	36	46	515
1985	515	420	10	45.5	324.5	6	30	55	484
1986	484	400	10	49	306	5	25	45	464
1987	464	380	19	24.5	292.5	3	24	41	478
1988	478	380	10	22	281	5	30	27	503
1989	503	430	11	40	331	4	25	35	509
1990	509	430	11	50	328	5	25	34	508

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter for farmers at commercial establishments.

SHEEP & LAMBS: Production, Marketings & Income, Utah, Selected Years.

Year	Production 1/	Marketing 2/	Price per 100 Pounds		Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
			Sheep	Lambs				
	1,000 Pounds		Dollars		1,000 Dollars			
1940	75,523	76,550	3.35	7.30	--	5,201	147	5,348
1950	56,611	56,624	10.60	24.90	--	13,535	278	13,813
1960	62,307	71,459	5.30	17.00	10,352	11,367	191	11,558
1970	60,909	73,550	7.10	25.40	15,009	16,992	608	17,600
1980	35,234	33,530	16.50	61.60	19,751	19,527	542	20,069
1984	38,330	45,786	14.10	57.70	20,165	21,772	345	22,117
1985	37,956	41,949	18.50	65.70	23,120	24,551	388	24,939
1986	37,047	40,624	21.30	65.30	22,747	23,400	361	23,761
1987	33,173	32,832	21.40	71.60	21,443	21,663	271	21,934
1988	31,010	28,420	20.00	61.50	17,038	16,109	387	16,496
1989	35,674	35,728	19.20	60.50	19,200	19,137	261	19,398
1990	35,800	36,670	18.70	48.50	15,575	15,550	393	15,943

1/ Adjustments made for changes in inventory and for inshipments. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipt from marketings and sale of farm slaughter.

SHEEP & LAMB SLAUGHTER: Number & Live Weight, Utah, Annual, Selected Years.

Year	Number 1/	Average Live Weight per Head	Total Live Weight
	1,000 Head	Pounds	1,000 Pounds
1944 2/	106.2	--	--
1950	155.0	101	15,682
1960	307.4	102	31,476
1970	847.0	106	89,400
1980	24.3	116	2,811
1984	31.0	113	3,523
1985	32.2	110	3,553
1986	40.1	109	4,368
1987	25.6	112	2,860
1988	23.4	119	2,795
1989	30.7	122	3,745
1990	44.7	117	5,236

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter. 2/ First year on record.

SHEEP & LAMB SLAUGHTER: Number & Live Weight, by Month, Utah 1989 & 1990.

Month	Number 1/		Average Live Weight per Head		Total Live Weight	
	1989	1990	1989	1990	1989	1990
	1,000 Head		Pounds		1,000 Pounds	
January	2.0	1.9	127	118	253	222
February	1.0	2.8	125	120	126	339
March	2.2	4.0	129	117	281	467
April	1.8	3.6	129	118	237	424
May	2.8	3.4	123	117	343	397
June	2.7	2.7	123	119	327	317
July	2.5	2.9	120	119	304	346
August	2.4	3.5	116	115	282	405
September	2.6	2.7	118	114	311	313
October	3.9	5.1	121	116	471	595
November	4.1	4.6	122	118	496	542
December	2.7	7.5	118	116	314	868

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter.

Sheep and Lamb Losses

The Utah Department of Agriculture sponsored a survey to make State estimates of sheep and lamb losses in 1990. Utah sheepmen were asked to categorize sheep and lamb losses by cause of death.

Sheep and lamb losses totaled 90,000 head during 1990, a 5 percent decrease from the 1989 level. Losses include 31,000 undocked lambs, 34,000 docking lambs, and 25,000 sheep. The total value of all losses was $7.1 million, down 16 percent from the previous year. Predators accounted for 46 percent of all losses, compared with 54 percent in 1989. Nonpredator losses were 36 percent of the total, 7 percentage points above the previous year.

Coyotes were the major cause of loss during 1990, accounting for 31 percent of all losses, and a total value of $2.2 million. Disease was the second leading cause, and was responsible for 7,000 deaths, with a total estimated value of $553,000. Other major causes of death were mountain lions and lambing complications. Unknown causes accounted for 18 percent of all losses, and a total value of $1.3 million.

SHEEP AND LAMB LOSSES: by Cause, Utah, 1990.

Cause	Total Head Lost			Percent of Losses			Value of All Losses 1/
	Lambs Before Docking	Lambs After Docking	Sheep	Lambs Before Docking	Lambs After Docking	Sheep	
	Number			Percent			Dollars
Dog	500	1,400	700	1.6	4.1	2.8	205,000
Coyote	6,100	15,000	6,500	19.7	44.1	26.0	2,180,000
Eagle	900	400	0	2.9	1.2	.0	103,000
Bear	200	1,200	500	.6	3.5	2.0	150,000
Mountain Lion	700	3,100	1,200	2.3	9.1	4.8	395,000
Other Animals	1,700	1,000	400	5.5	2.9	1.6	245,000
Total Losses to Predators 2/	10,100	22,100	9,300	32.6	65.0	37.2	3,279,000
Weather Conditions	4,200	400	300	13.5	1.2	1.2	387,000
Disease	2,500	2,000	2,500	8.1	5.9	10.0	553,000
Poison	100	400	1,700	.3	1.2	6.8	174,000
Lambing Complications	5,700	0	1,100	18.4	.0	4.4	537,000
Old Age	0	0	4,100	.0	.0	16.4	324,000
Theft	0	300	400	.0	.9	1.6	55,000
Other (i.e. bloat-etc.)	2,800	1,800	1,600	9.0	5.3	6.4	490,000
Total Nonpredator Losses 2/	15,300	4,900	11,700	49.4	14.4	46.8	2,520,000
All Unknown Causes	5,600	7,000	4,000	18.1	20.6	16.0	1,311,000
Total Losses	31,000	34,000	25,000	100.0	100.0	100.0	7,110,000

1/ Value per head of $79.00 assigned based on average of beginning of year and end of year inventory valuations. 2/ Individual classes may not add to total due to rounding.

Hogs and Pigs

Utah hog and pig inventory on December 1, 1990, was 33,000 head, 22 percent above the December 1, 1989, level. The total pig crop for the year was 52,000 head, 36 percent above the previous year. A total of 7,600 sows farrowed during 1990, up 49 percent from 1989. The number of hog and pig farms remain the same as the previous year.

The December 1 average value per head of Utah's hogs and pigs was $93.00, up $16.50 from the 1989 level. The total inventory value was $3.1 million, up 49 percent from a year earlier.

Cash receipts during the December 1, 1989 - December 1, 1990, period totaled $5.1 million, up 31 percent from 1989. Marketings during 1990, were at 10.6 million pounds, 6 percent above the previous year. Hog prices averaged $48.20 per hundredweight, up $9.40 from the 1989 average price.

HOGS AND PIGS: Farms and Inventory and Value, Utah, Selected Years.

Year	Farms	Hogs and Pigs on Farms December 1		
	Number with Hogs	Number	Value	
			Per Head	Total
		1,000 Head	Dollars	1,000 Dollars
1940	--	1/ 125	6.60	825
1950	--	1/ 88	22.20	1,954
1960	--	1/ 68	16.20	1,102
1970	2,000	45	23.00	1,035
1980	2,200	58	63.00	3,654
1983	1,600	33	80.00	2,640
1984	1,400	28	75.50	2,114
1985	1,200	23	79.00	1,817
1986	1,000	25	83.00	2,075
1987	900	30	80.50	2,415
1988	900	33	69.50	2,294
1989	900	27	76.50	2,066
1990	900	33	93.00	3,069

1/ January 1 inventory.

HOGS: Inventory by Class and Weight Group, Utah, December 1, Selected Years.

Year	Total	Breeding	Market	Market Hogs & Pigs by Weight Group			
				Under 60 Lbs.	60-119 Lbs.	120-179 Lbs.	180 Lbs.& Over
	1,000 Head						
1963 1/ . .	50	8	42	19	8	7	8
1970	45	8	37	16	9	6	6
1980	58	7	51	15	16	14	6
1983	33	5	28	13	6	5	4
1984	28	4	24	10	5	6	3
1985	23	3	20	8	5	4	3
1986	25	3	22	9	6	4	3
1987	30	4	26	10	7	5	4
1988	33	5	28	12	6	5	5
1989	27	4	23	8	6	5	4
1990	33	5	28	10	7	5	6

1/ First year on record.

PIG CROP: Sows Farrowing and Pigs Saved, Utah, Selected Years.

Year	Spring Pig Crop 1/			Fall Pig Crop 2/			Total Pig Crop Spring & Fall	
	Sows Farrowing	Pigs per Litter	Pigs Saved	Sows Farrowing	Pigs per Litter	Pigs Saved	Sows Farrowing	Pigs Saved
	1,000 Head	Head	- 1,000 Head -		Head		1,000 Head	
1940 . . .	16.0	6.0	96.0	10.0	6.8	68.0	26.0	164.0
1950 . . .	10.0	6.4	64.0	7.0	6.9	48.0	17.0	112.0
1960 . . .	5.8	6.7	39.0	6.2	7.3	45.0	12.0	84.0
1970 . . .	4.8	7.1	34.0	4.6	7.2	33.0	9.4	67.0
1980 . . .	5.0	7.0	35.0	8.0	6.0	48.0	13.0	83.0
1983 . . .	2.8	7.4	21.0	2.7	7.7	21.0	5.5	42.0
1984 . . .	2.3	7.0	16.0	2.2	7.4	16.0	4.5	32.0
1985 . . .	2.3	6.4	15.0	1.7	7.5	13.0	4.0	28.0
1986 . . .	2.3	7.9	18.0	1.9	7.6	14.0	4.2	32.0
1987 . . .	2.3	7.4	17.0	2.1	7.9	17.0	4.4	34.0
1988 . . .	2.9	7.4	22.0	3.0	8.0	24.0	5.9	46.0
1989 . . .	2.8	7.3	20.4	2.3	7.8	17.9	5.1	38.3
1990 . . .	3.2	7.2	23.0	4.4	6.6	29.0	7.6	52.0

1/ Spring, December through May. 2/ Fall, June through November.

HOGS AND PIGS: Inventory, Supply, and Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Annual Pig Crop	Inship-ments	Marketings 1/	Farm Slaughter 2/	Deaths	Inventory End of Year
	1,000 Head						
1940 ...	125	164	3	139	32	16	105
1950 ...	88	112	1	83	19	15	84
1960 ...	68	84	1	64	11	10	68
1970 ...	43	67	2	58	3	6	45
1980 ...	55	83	2	73	2	7	58
1984 ...	33	32	2	35.1	1.4	2.5	28
1985 ...	28	28	1	30.5	1.2	2.3	23
1986 ...	23	32	2	28	1.1	2.9	25
1987 ...	25	34	3	26.6	.2	5.2	30
1988 ...	30	46	3	42.5	.8	2.7	33
1989 ...	33	38.3	2	42.3	1.4	2.6	27
1990 ...	27	52	4	45	1	4	33

1/ Includes custom slaughter for use on farm where produced, State out-shipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter for farmers at commercial establishments.

HOGS AND PIGS: Production and Income, Utah, Selected Years.

Year	Production 1/	Market-ings 2/	Price per 100 Lbs.	Value of Production	Cash Receipts 3/	Value of Home Consump-tion	Gross Income
	1,000 Dollars		Dollars	1,000 Dollars			
1940 ...	31,760	27,800	5.70	--	1,734	268	2,002
1950 ...	23,272	18,687	18.60	--	3,779	544	4,323
1960 ...	16,611	13,676	15.70	2,608	2,210	331	2,541
1970 ...	13,852	12,488	22.40	3,103	2,797	269	3,066
1980 ...	18,483	16,125	36.70	6,762	5,918	488	6,406
1984 ...	7,956	7,971	45.50	3,596	3,627	293	3,920
1985 ...	6,780	6,929	41.00	2,768	2,841	226	3,067
1986 ...	6,907	6,367	47.00	3,223	2,992	238	3,230
1987 ...	7,149	6,428	47.70	3,369	3,066	50	3,116
1988 ...	10,789	10,046	37.70	4,056	3,787	157	3,944
1989 ...	9,746	9,984	38.80	3,773	3,874	196	4,070
1990 ...	11,706	10,601	48.20	5,619	5,110	212	5,322

1/ Adjustments made for inshipments and changes in inventories. 2/ Excludes interfarm sales and custom slaughter for use on farms where produced. 3/ Includes receipts from marketings and from sales of farm slaughtered meat.

COMMERCIAL HOG SLAUGHTER: Number and Live Weight, Annual, Utah, Selected Years.

Year	Number 1/	Average Live Weight	Total Live Weight
	1,000 Head	Pounds	1,000 Pounds
1944 2/	258.2	--	--
1950	246.7	228	56,259
1960	306.4	227	69,695
1970	117.4	229	26,837
1980	154.5	236	36,428
1984	214.0	239	51,192
1985	217.1	232	50,409
1986	221.6	240	53,092
1987	232.0	240	55,596
1988	261.5	240	62,736
1989	271.0	241	65,284
1990	269.9	246	66,387

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter. 2/ First year on record.

COMMERCIAL HOG SLAUGHTER: Number and Live Weight, by Month, Utah, 1989 and 1990.

Month	Number 1/		Average Live Weight per Head		Total Live Weight	
	1989	1990	1989	1990	1989	1990
	1,000 Head		Pounds		1,000 Pounds	
January	24.5	23.2	239	243	5,836	5,621
February	19.9	19.4	238	244	4,736	4,739
March	24.9	22.0	236	245	5,871	5,405
April	22.5	20.9	238	246	5,350	5,141
May	23.2	21.5	239	247	5,547	5,312
June	23.4	18.9	240	246	5,625	4,643
July	19.8	19.8	241	243	4,777	4,808
August	22.6	25.3	241	244	5,458	6,188
September	22.0	23.2	242	242	5,335	5,610
October	21.7	25.7	248	255	5,398	6,557
November	24.7	26.6	243	248	5,987	6,597
December	21.9	23.4	245	246	5,366	5,764

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter.

Chickens and Eggs

The value of eggs produced in Utah during 1990 totaled $24.3 million, 2 percent below last year's level. Total production at 456 million eggs, was down 1 percent from 1989. The average price of eggs was 64 cents per dozen, 1 cent below the previous year.

The average number of layers during the year was 1.82 million, 2 percent below the 1989 level. Eggs produced per layer was 250, compared with 248 the previous year.

Pounds of chicken sold at 4.8 million, increased 2.8 percent from 1989. The average price per pound of chickens sold was 2.1 cents, down sharply from 7 cents per pound in 1989. The value of chickens sold in 1990 was $100,000, down 62 percent from the 1989 value.

LAYERS AND EGGS 1/: Number, Production and Value of Production, Utah, Selected Years

Year	Average Number of Layers	Eggs per Layer	Total Egg Production	Price per Dozen	Value of Production
	1,000	Number	Millions	Cents	1,000 Dollars
1940	1,739	155	269	18.7	4,176
1950	2,310	184	425	39.5	13,989
1960	1,377	223	307	34.9	8,928
1970	1,256	216	271	36.0	8,130
1980	1,762	236	416	49.0	16,987
1985	1,827	229	418	50.0	17,417
1986	1,781	257	457	49.0	18,661
1987	1,906	259	493	45.0	18,487
1988	1,933	253	490	52.0	21,233
1989	1,849	248	460	65.0	24,917
1990	1,817	250	456	64.0	24,320

1/ Estimates cover the 12 month period, December 1 previous year, through November 30.

CHICKEN INVENTORY 1/: Number and Value, Utah, Selected Years.

Date	Hens and Pullets of Laying Age	Pullets 3 Months and Over Not Laying	Pullets Under 3 Months	Other Chickens	Total Chickens		
					Number	Value	
						Average	Total
	1,000 Head					Dollars	1,000 Dollars
Jan. 1, 1940	2/ 2,191	3/	4/	175	2,366	.63	1,491
Jan. 1, 1950	2/ 2,871	3/	4/	150	3,021	1.22	3,686
Jan. 1, 1960	2/ 1,691	3/	4/	69	1,760	.94	1,654
Jan. 1, 1970	1,320	190	219	10	1,739	1.20	2,087
Dec. 1, 1970	1,182	218	327	10	1,737	1.10	1,911
Dec. 1, 1980	1,871	91	134	4	2,100	1.65	3,465
Dec. 1, 1984	1,868	120	321	5	2,314	2.35	5,438
Dec. 1, 1985	1,748	377	297	3	2,425	1.75	4,244
Dec. 1, 1986	1,858	203	345	3	2,409	1.80	4,336
Dec. 1, 1987	1,921	232	260	3	2,416	1.80	4,349
Dec. 1, 1988	1,868	202	186	4	2,260	1.65	3,729
Dec. 1, 1989	1,779	158	193	3	2,133	1.60	3,413
Dec. 1, 1990	1,858	273	208	1	2,340	1.90	4,446

1/ Excludes commercial broilers. 2/ Includes pullets not of laying age. 3/ Included with hens and pullets. 4/ Included in hens and pullets and in other chickens.

CHICKENS 1/: Lost, Sold, and Value of Sales, Utah, Selected Years.

Year	Number Lost 2/	Number Sold	Pounds Sold	Price per Pound	Value of Sales
	1,000 Head		1,000	Cents	1,000 Dollars
1940	426	2,044	6,132	11.0	675
1950	634	3,562	13,892	20.7	2,876
1960	334	1,018	4,174	8.2	342
1970	200	638	2,552	4.0	102
1980	260	804	3,055	8.0	244
1984	185	1,090	4,360	9.0	392
1985	170	1,250	5,000	8.0	400
1986	165	860	3,440	10.0	344
1987	212	955	3,820	6.0	229
1988	202	1,070	4,280	6.7	287
1989	170	930	3,720	7.0	260
1990	160	1,190	4,760	2.1	100

1/ Estimates exclude broilers and cover the 12 month period January 1 through December 31 – in 1970, estimating period changed to Dec. 1 previous year through Nov. 30. 2/ Includes death and other losses during the 12 month period.

Turkeys

Utah turkey production in 1990 at 3.93 million birds, was 9 percent above the previous year.

The average price received per pound for turkeys was 52 cents, the same level as the previous year. Total value produced was $46.8 million, 6 percent above the 1989 total value.

Turkey production of 90.0 million pounds was 6 percent higher than a year earlier. The average live weight per bird was 22.9 pounds, compared with 23.6 pounds during 1989.

Utah turkey farms are located primarily in Sanpete County.

TURKEYS: Production and Gross Income, Utah, Selected States.

Year	Raised 1/	Average Weight	Produced	Per Pound 2/	Gross Income 3/
	1,000 Head	Pounds	1,000 Pounds	Cents	1,000 Dollars
1940	854	16.0	13,656	17.4	2,376
1950	1,673	21.5	35,914	27.8	9,984
1960	2,801	20.2	56,515	24.3	13,733
1970	3,946	21.6	85,234	22.1	18,837
1980	2,409	22.2	53,480	50.0	26,740
1984	2,387	22.8	54,424	59.0	32,110
1985	3,082	24.3	74,893	62.0	46,433
1986	3,390	22.7	76,953	64.0	49,250
1987	3,731	24.2	90,290	42.0	37,922
1988	3,900	23.1	90,090	54.0	48,649
1989	3,590	23.6	84,724	52.0	44,056
1990	3,930	22.9	89,997	52.0	46,798

1/ Includes heavy and light breeds. 2/ Live weight equivalent price. 3/ Includes home consumption, less than 1 percent of production.

Bees and Honey

Honey production in Utah totaled 1.7 million pounds in 1990, down 16 percent from the 1989 level. The number of colonies, at 47,000 was unchanged from the previous year. The value per pound of honey averaged 56 cents, up 2 cents from 1989, but below the 1988 price of 61 cents per pound. The total value of the honey produced in 1990 was 1.0 million dollars, 13 percent below the 1989 level.

Several Utah apiaries transport their bees to surrounding States, and honey produced during these moves is counted in the State where the honey was produced.

HONEY: Colonies of Bees, Production, & Value, Utah, Selected Years.

Year	Colonies of Bees	Honey			
		Production		Value	
		Per Colony	Total	Per Pound	Total
	1,000	Pounds	1,000 Pounds	Cents	Total
1940	53	45	2,385	3.6	86
1950	49	51	2,499	11.0	275
1960	52	34	1,768	15.6	276
1970	50	36	1,800	18.1	326
1980	46	33	1,518	58.1	882
1983 1/					
1984 1/					
1985 1/					
1986	35	45	1,575	61	961
1987	35	48	1,688	54	912
1988	36	41	1,476	61	900
1989	47	44	2,068	54	1,117
1990	47	37	1,739	56	974

1/ Estimates not made 1982-85.

Mink

Mink production in Utah during 1990 totaled to 780,000 pelts, 1 percent above the record high level set in 1989. The number of females bred to produce kits in 1990 was 189,000, down 16 percent from the previous year. Utah ranked second in the nation in mink production in 1989.

Standard was the most common type of pelt produced, accounting for 53 percent of all pelts taken. Demi-buff and Mahogany accounted for 20 and 12 percent respectively.

In 1989, there were 175 mink farms in Utah, the same number as in 1988. Leading mink producing counties were Morgan and Utah producing over 50 percent of all pelts taken. Other leading counties were: Summit, Salt Lake, and Cache.

MINK: Number of Ranches, Pelts Produced, Females Bred, Average Price & Value; Utah & United States, Selected Years.

Year	UTAH			UNITED STATES				
	Ranches Producing Pelts	Pelts Produced	Females Bred	Ranches Producing Pelts	Pelts Produced	Females Bred	Average Pelt Price	Value of Pelts
		--- 1,000 ---			--- 1,000 ---		Dollars	Million Dollars
1971 ...	261	340.0	108.0	1,615	3,380	1,011	N/A	N/A
1972 ...	225	285.0	94.5	1,380	2,965	858	N/A	N/A
1973 ...	218	283.0	100.0	1,329	3,037	902	N/A	N/A
1974 ...	198	315.0	103.0	1,221	3,128	905	N/A	N/A
1975 ...	186	308.0	99.0	1,084	3,067	870	24.10	73.9
1976 ...	168	323.0	97.7	1,015	3,026	847	29.00	87.8
1977 ...	185	359.0	113.0	1,040	3,076	887	28.30	87.1
1978 ...	191	411.0	129.0	1,095	3,358	925	39.30	132.0
1979 ...	190	413.3	141.0	1,105	3,394	978	41.10	139.5
1980 ...	190	465.7	149.0	1,122	3,501	1,037	35.30	123.6
1981 ...	N/A	N/A	152.1	N/A	N/A	1,074	32.20	N/A
1982 ...	175	545.4	N/A	1,116	4,085	N/A	28.90	118.1
1983 ...	145	505.5	166.8	1,098	4,137	1,132	29.90	123.7
1984 ...	159	487.5	156.0	1,084	4,220	1,115	30.80	130.0
1985 ...	132	501.7	148.3	1,042	4,171	1,115	28.0	116.8
1986 ...	121	479.4	144.3	989	4,096	1,073	41.30	170.0
1987 ...	165	690.0	137.6	1,027	4,122	1,077	43.0	177.2
1988 ...	175	770.0	208.0	1,027	4,453	1,198	32.30	143.8
1989 ...	175	780.0	225.0	952	4,602	1,202	25.80	118.7
1990 ...	1/	1/	189.0	1/	1/	921		

N/A = Not Available
1/ Data available July 19, 1991.

TROUT ALL: Number of Operations and Sales, Utah, September 1, 1989 - August 31, 1990.

Number of Operations		Total Sales	
September 1		September 1 - August 31	
1989	1990	1989	1990
Number		1,000 Dollars	
10	8	4,731	3,512

1/ Total value of sales for 1989 does not include the value of fingerling sales.

TROUT FOODSIZED: 1/ Sales, Number, Weight, and Value, Utah, September 1, 1989 - August 31, 1990.

Number of Head		Total Pounds Sold		Total Value of Sales		Average Value per Pound	
1989	1990	1989	1990	1989	1990	1989	1990
Thousands				1,000 Dollars		Dollars	
4,101	3,391	3,332	2,643	4,617	3,478	1.39	1.32

1/ Foodsized fish are defined as being 12" or longer.

TROUT FOODSIZE: Percent Sold by Outlet Type, Utah, September 1, 1989 - August 31, 1990.

Live Haulers	Fee/Rec Fishing	Other Producers	Govt.	Direct to Consumer	Processors	Rest & Retail	Other
Percent							
1	3	4	1	1	0	90	0

Farm Labor

Agriculture labor surveys in Utah are conducted quarterly; (January, April, July, and October), and each survey collects labor information for a one week period. Estimates for these four survey weeks are available, but monthly or annual estimates are not available. Separate estimates for the State of Utah are not available. Utah is included in the Mountain II region, (Colorado, Nevada, and Utah).

The number of farm workers in the Mountain II region during the July 1990 through April 1991, quarterly survey periods peaked in July 1990, at 73,000 people, 11,000 fewer than in July 1989. The number of self-employed, unpaid, and hired workers, also peaked in July at 27,000, -- 17,000, and 29,000 workers respectively.

Wage rates were generally higher during the January and April survey periods, when the average rate for all hired workers, was $5.70 per hour. Workers paid on an hourly basis earned their highest wages in April, when the average rate was $5.74 per hour. Livestock workers received the highest wage rates of any non-supervisor workers during the July and January survey periods, while field workers received the highest non-supervisor wage during the October and April survey periods.

FARM LABOR & WAGE RATES: Mountain II Region, July 1990, October 1990, January 1991, and April 1991 1/.

	July 8-14, 1990	October 7-13, 1990	January 6-12, 1991	April 7-13, 1991
		Workers on Farms (000) 2/		
Total	73.0	61.0	46.0	54.0
Self Employed	27.0	25.0	25.0	27.0
Unpaid	17.0	8.0	6.0	10.0
Hired	29.0	28.0	15.0	17.0
		Hours Worked per Worker 2/		
Self Employed	56.8	45.7	32.3	43.4
Unpaid Workers	37.8	35.3	30.8	32.2
Hired Workers	49.2	49.9	43.8	45.7
		Method of Pay - Dollars per Hour 2/		
Hourly	4.73	5.61	5.46	5.74
Piece Rate	3/	3/	3/	3/
Other	5.48	5.16	6.04	5.62
All	5.00	5.45	5.70	5.67
		Type of Work - Dollars per Hour 2/		
Field Workers	4.71	5.24	5.09	5.62
Livestock Workers	4.95	5.04	5.46	5.21
Field & Livestock Workers	4.77	5.17	5.38	5.44
Supervisory	7.50	7.27	7.74	6.98
Other	3/	3/	5.18	3/

1/ Mountain II Region includes Colorado, Nevada., and Utah. 2/ Excludes Agricultural Service Workers. 3/ Insufficient data.

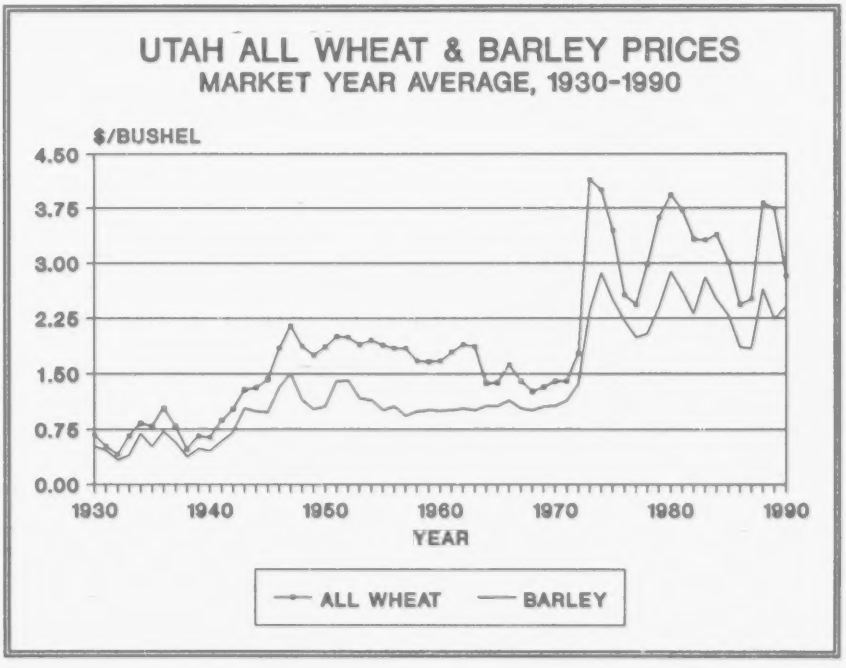
Agricultural Prices

Each year, the National Agricultural Statistics Service collects price data for various crop and livestock items in each State. This price data is used to make estimates of prices received by farmers for their commodities. These prices are parts of a series which determines deficiency payments, and are used to compute an Index of Prices Received by Farmers. This provides a single indicator of farm price trends at a given time.

Most prices after 1979 are based on actual sales by producers of a commodity during the entire month. Preliminary sales prices are obtained from the current month, based on sales around the 15th of the month. This "mid-month" price is revised the following month when sales data for the entire month become available. Livestock prices prior to 1980, and crop prices prior to 1977, are mid-month prices. Yearly average prices for each commodity are weighted based on the volume of sales of each commodity during a given month.

There were a number of record high prices set during 1990. The market year average prices for cows, steers and heifers, beef cattle, calves, and all-hay, were new highs for the State of Utah. The average milk price was high, but still fell short of the 1981 record high. In contrast, the 1990 average lamb price was the lowest on record since 1976.

Prices for many Utah agricultural commodities are published only on an annual basis. This is either because Utah produces a very small portion of the national total, or because price data is only collected on an annual basis. These annual average prices can be found in individual commodity tables within this publication.



AVERAGE PRICES RECEIVED: by Farmers, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average 1/
							BARLEY (Dollars per Bushel) 2/						
1950	1.09	1.07	1.13	1.08	1.08	1.11	1.18	1.12	1.14	1.11	1.11	1.18	1.16
1960	1.02	1.00	1.00	1.00	1.00	1.02	.98	.98	.98	1.00	1.00	1.01	1.00
1970	1.10	1.10	1.09	1.04	1.03	1.05	1.01	.98	.99	1.04	1.07	1.12	1.07
1980	2.49	2.51	2.64	2.58	2.50	2.46	2.53	2.56	2.67	2.89	2.93	2.92	2.88
1984	2.94	2.92	2.86	2.96	2.90	2.93	2.79	2.40	2.37	2.43	2.46	2.50	2.50
1985	2.52	2.61	2.65	2.64	2.51	2.43	2.39	2.15	2.11	2.20	2.29	2.44	2.28
1986	2.33	2.26	2.39	2.39	2.46	2.24	1.92	1.79	1.80	1.87	1.86	1.83	1.85
1987	1.91	1.88	1.82	1.83	1.93	1.78	1.75	1.74	1.79	1.83	1.88	1.93	1.84
1988	1.93	2.05	1.92	1.90	2.05	1.98	2.46	2.58	2.68	2.72	2.89	2.65	2.64
1989	2.70	2.72	2.76	2.59	2.55	2.57	2.20	2.12	2.11	2.18	2.29	2.36	2.23
1990	2.30	2.35	2.38	2.40	2.46	2.45	2.28	2.29	2.33	2.49	2.47	2.35	2.40
							ALFALFA & ALFALFA HAY MIXTURES, BALED (Dollars per Ton) 3/						
1950	21.60	20.00	18.30	18.30	18.80	20.00	22.00	22.50	22.50	22.90	22.90	24.00	NA
1960	27.00	27.50	26.50	26.50	26.70	26.70	26.40	26.40	27.00	27.00	28.00	28.50	NA
1970	25.50	26.00	26.00	25.50	25.50	25.50	24.00	24.00	24.50	24.50	25.50	25.50	NA
1980	65.00	73.00	71.00	69.00	60.50	71.50	73.50	69.50	70.00	75.00	74.00	76.00	NA
1984	83.00	82.00	84.00	88.00	86.00	83.00	73.00	71.00	72.00	72.00	74.00	75.00	NA
1985	75.00	75.00	72.00	72.00	74.00	76.00	75.00	64.00	71.00	67.00	69.00	75.00	NA
1986	71.00	78.00	70.00	76.00	73.00	71.00	66.00	64.00	62.00	61.00	65.00	63.00	NA
1987	66.00	67.00	66.00	63.00	59.00	69.00	71.00	66.00	72.00	69.00	70.00	70.00	NA
1988	74.00	74.00	75.00	74.00	74.00	75.00	75.00	76.00	77.00	79.00	77.00	77.00	NA
1989	84.00	86.00	87.00	85.00	83.00	79.00	87.00	86.00	85.00	85.00	85.00	85.00	85.00
1990	85.00	85.00	86.00	86.00	85.00	86.00	86.00	85.00	80.00	85.00	86.00	84.00	83.00
							ALL HAY, BALED (Dollars per Ton) 3/						
1950	21.10	19.20	17.50	17.50	18.30	19.00	21.00	21.50	21.50	22.50	22.50	23.50	22.20
1960	26.20	26.80	25.70	25.70	25.70	26.00	25.50	25.60	26.40	26.50	27.40	27.80	26.40
1970	25.00	25.50	25.50	25.00	25.00	25.00	23.50	23.40	23.80	23.90	24.90	24.90	25.00
1980	63.50	62.00	63.00	65.00	60.00	69.50	71.50	67.50	67.00	73.00	72.00	72.00	70.00
1984	78.00	78.00	78.00	82.00	82.00	80.00	72.00	68.00	69.00	70.00	72.00	65.00	70.50
1985	68.00	68.00	67.00	65.00	68.00	68.00	70.00	60.00	67.00	63.00	64.00	71.00	67.00
1986	67.00	72.00	67.00	70.00	66.00	67.00	63.00	61.00	59.00	59.00	61.00	60.00	62.50
1987	63.00	64.00	63.00	60.00	56.00	65.00	66.00	63.00	68.00	64.00	66.00	67.00	67.00
1988	71.00	70.00	71.00	71.00	71.00	72.00	72.00	73.00	75.00	77.00	75.00	75.00	76.00
1989	81.00	83.00	85.00	83.00	82.00	76.00	84.00	83.00	83.00	83.00	83.00	83.00	82.50
1990	83.00	83.00	83.00	83.00	84.00	84.00	84.00	83.00	79.00	83.00	83.00	82.00	81.50

1/ Marketing year, barley, July 1 to June 30; hay, May 1 to April 30. 2/ Average price relates to mid-month average through 1976. Starting in 1977, it represents an average for the entire month. 3/ Mid-month average price. NA = Not available.

AVERAGE PRICES RECEIVED: by Farmers, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
						COWS (Dollars per Hundredweight) 1/							
1960 ...	14.00	14.70	16.00	15.70	16.00	14.60	13.10	13.30	13.50	13.10	12.90	13.70	14.10
1970 ...	20.00	21.50	22.50	21.80	21.30	20.90	20.70	20.10	19.90	18.40	17.70	18.10	20.20
1980 ...	44.10	46.10	44.90	43.60	40.00	41.60	42.10	43.80	44.80	45.30	42.20	40.90	43.30
1984 ...	34.80	37.20	39.90	39.50	38.60	38.40	38.10	37.80	35.90	36.20	32.80	34.70	36.70
1985 ...	36.70	38.00	37.90	38.30	36.60	34.70	33.50	34.40	32.50	31.80	30.60	31.20	34.30
1986 ...	32.70	34.30	35.60	31.20	33.60	34.60	33.90	34.80	35.10	34.80	32.90	34.00	34.00
1987 ...	38.20	41.30	42.80	42.50	43.30	42.90	42.70	43.70	44.10	43.20	41.00	43.70	42.40
1988 ...	45.20	47.30	47.50	48.00	48.00	44.60	45.30	45.80	44.80	42.40	40.60	40.70	44.70
1989 ...	43.50	46.20	45.90	45.10	45.20	45.70	46.20	47.10	48.20	44.20	43.40	44.50	45.30
1990 ...	46.20	51.30	52.70	52.90	53.70	55.00	54.20	53.50	51.40	49.00	45.00	47.30	50.90
						STEERS & HEIFERS (Dollars per Hundredweight) 1/							
1960 ...	20.50	21.10	22.30	22.40	22.70	21.30	20.60	19.70	19.70	18.80	18.80	20.30	20.60
1970 ...	27.50	28.70	31.50	28.80	29.00	29.00	28.50	26.80	26.90	26.70	26.90	25.80	27.90
1980 ...	70.10	70.60	68.10	62.60	61.70	63.00	65.20	65.30	64.70	64.90	63.70	62.70	65.20
1984 ...	63.50	63.10	63.60	63.60	61.80	62.10	62.10	60.40	58.50	56.80	58.40	61.10	60.80
1985 ...	61.30	61.70	57.50	56.70	56.30	55.50	50.80	49.80	50.20	56.20	59.60	57.90	56.00
1986 ...	56.00	53.90	54.10	52.10	52.50	51.00	55.50	57.20	56.50	56.00	58.00	58.40	55.20
1987 ...	57.70	60.90	62.00	64.90	66.80	66.50	63.50	64.10	64.30	63.80	64.00	63.80	63.50
1988 ...	64.20	66.90	68.70	70.70	70.70	67.30	64.70	67.00	67.60	70.60	68.20	69.40	68.40
1989 ...	74.10	74.00	74.40	72.90	71.50	70.00	72.50	71.90	69.20	71.40	72.70	74.90	72.30
1990 ...	76.40	76.50	77.00	78.60	77.20	76.50	74.50	74.80	74.00	76.90	78.10	79.20	76.80
						BEEF CATTLE (Dollars per Hundredweight) 1/							
1960 ...	18.10	18.90	20.40	20.30	20.50	18.70	17.50	17.20	17.50	17.20	16.90	18.00	18.40
1970 ...	25.20	26.30	28.70	26.70	26.70	26.70	25.90	24.60	24.70	24.40	24.60	23.70	25.60
1980 ...	64.10	65.00	63.20	58.60	57.10	59.40	60.10	60.80	60.50	60.80	57.50	55.90	60.30
1984 ...	60.30	60.40	60.60	60.90	59.60	60.40	60.30	59.20	56.80	55.80	55.60	56.60	58.60
1985 ...	58.40	58.90	55.60	55.30	54.20	53.30	49.70	48.60	48.70	54.40	55.50	53.80	53.90
1986 ...	52.70	51.90	52.50	51.00	49.70	49.60	54.40	55.90	54.90	54.00	55.00	54.60	53.30
1987 ...	55.80	59.50	60.90	63.30	64.20	64.70	62.30	62.80	62.40	62.10	61.50	61.80	61.80
1988 ...	62.70	65.10	66.50	69.30	69.40	65.30	63.50	65.50	66.40	68.60	64.70	66.30	66.50
1989 ...	66.70	67.70	67.60	67.20	65.60	65.00	66.30	67.50	66.70	65.40	66.70	70.90	67.00
1990 ...	71.40	73.40	74.80	76.10	73.10	71.40	72.40	72.30	71.10	75.00	74.00	76.40	73.80

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices.

AVERAGE PRICES RECEIVED: by Farmers, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
						CALVES (Dollars per Hundredweight) 1/							
1960	24.00	25.00	25.20	25.80	26.00	23.50	22.00	20.50	21.30	22.50	22.30	23.50	23.40
1970	35.00	37.20	38.00	34.50	34.40	34.90	33.00	31.00	31.70	33.00	32.60	33.30	34.20
1980	82.00	85.50	83.30	72.60	72.20	77.20	77.70	75.10	72.70	75.70	71.50	73.20	75.50
1984	58.50	63.30	63.20	62.40	59.00	58.90	55.70	58.50	59.30	60.50	60.80	60.40	60.70
1985	63.50	68.00	67.10	64.20	63.90	62.50	58.20	57.30	56.70	61.00	61.20	59.50	61.90
1986	62.00	65.20	64.00	56.20	54.10	54.80	55.60	59.40	61.00	62.70	63.00	63.90	62.10
1987	66.50	70.50	72.60	74.60	74.40	72.50	77.20	80.00	85.70	84.80	81.80	84.00	79.40
1988	85.80	89.00	92.50	89.90	92.10	84.60	79.10	86.00	93.40	95.80	86.50	86.20	91.50
1989	90.20	93.50	96.60	87.40	83.40	84.50	90.10	96.50	91.80	85.80	87.70	90.20	89.40
1990	90.10	95.00	93.20	96.30	93.80	98.50	97.90	99.50	97.70	91.70	91.20	92.10	93.90
						MILK COWS (Dollars per Head) 2/ 3/							
1960	220	220	220	225	225	235	225	225	215	205	205	215	220
1970	320	320	330	330	330	330	325	315	310	320	340	320	324
1980	1160	1190	1220	1220	1200	1200	1190	1210	1210	1220	1220	1220	1210
1984	820	--	--	840	--	--	870	--	--	850	--	--	845
1985	840	--	--	870	--	--	830	--	--	800	--	--	835
1986	780	--	--	770	--	--	780	--	--	800	--	--	785
1987	810	--	--	900	--	--	900	--	--	980	--	--	900
1988	980	--	--	1050	--	--	1030	--	--	1000	--	--	1020
1989	970	--	--	1040	--	--	1060	--	--	1060	--	--	1030
1990	1070	--	--	1140	--	--	1190	--	--	1250	--	--	1160

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices. 2/ Mid-month average price. 3/ Published only by quarters starting 1982.

AVERAGE PRICES RECEIVED: by Farmers, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
						MILK, ALL (Dollars per Hundredweight) 1/							
1950 .	4.00	3.90	3.65	3.50	3.30	3.30	3.35	3.60	3.75	4.00	4.15	4.15	3.69
1960 .	4.25	4.15	4.05	3.95	3.85	3.80	3.80	3.95	4.20	4.25	4.35	4.40	4.07
1970 .	5.70	5.55	5.40	5.45	5.35	5.20	5.20	5.30	5.55	5.65	5.80	5.80	5.48
1980 .	12.40	12.30	12.30	12.20	12.10	12.20	12.00	12.10	12.70	13.00	13.30	13.50	12.50
1984 .	13.40	13.10	12.80	12.60	12.40	12.20	12.20	12.50	12.90	13.50	13.80	13.70	12.90
1985 .	13.50	13.20	13.00	12.50	12.00	11.30	11.10	11.20	11.60	11.90	12.10	12.30	12.00
1986 .	12.10	11.80	11.40	11.60	11.30	11.20	11.10	11.40	12.00	12.60	12.80	12.70	11.80
1987 .	12.70	12.30	12.00	11.70	11.40	11.40	11.40	11.70	12.10	12.00	12.20	12.30	11.90
1988 .	12.10	11.80	11.50	11.20	10.80	10.50	10.80	11.20	11.90	12.40	12.60	13.00	11.60
1989 .	12.70	12.40	11.80	11.40	11.30	11.40	11.60	12.30	13.20	13.70	14.50	15.00	12.60
1990 .	14.90	13.80	13.10	12.60	12.70	13.00	13.20	13.50	13.40	12.00	11.80	10.90	12.90
						MILK, ELIGIBLE FOR FLUID MARKET (Dollars per Hundredweight) 1/ 2/							
1950 .	4.90	4.85	4.55	4.25	4.15	4.15	4.20	4.60	4.80	5.05	5.15	5.20	4.64
1960 .	4.75	4.70	4.60	4.50	4.35	4.30	4.30	4.45	4.70	4.75	4.85	4.85	4.59
1970 .	6.10	5.90	5.75	5.90	5.75	5.60	5.60	5.70	5.95	6.05	6.25	6.25	5.90
1980 .	12.70	12.50	12.50	12.40	12.30	12.40	12.20	12.40	12.90	13.30	13.60	13.90	12.70
1984 .	13.60	13.30	13.00	13.00	12.80	12.50	12.60	12.80	13.20	13.70	14.10	14.00	13.20
1985 .	13.90	13.60	13.30	12.80	12.20	11.50	11.30	11.40	11.70	12.00	12.20	12.40	12.20
1986 .	12.20	11.90	11.60	11.80	11.50	11.30	11.30	11.60	12.20	12.80	13.00	12.90	12.00
1987 .	12.90	12.50	12.20	11.90	11.60	11.60	11.60	11.90	12.50	12.30	12.40	12.50	12.10
1988 .	12.40	12.10	11.70	11.50	11.00	10.70	11.00	11.40	12.00	12.50	12.80	13.20	11.80
1989 .	12.90	12.70	12.10	11.60	11.50	11.60	11.80	12.50	13.30	13.90	14.70	15.20	12.80
1990 .	15.30	14.40	13.50	12.80	12.90	13.20	13.40	13.80	13.70	12.50	12.10	11.10	13.20
						MILK, MANUFACTURING GRADE (Dollars per Hundredweight) 1/							
1950 .	3.25	3.15	3.00	2.90	2.75	2.75	2.75	2.85	2.90	3.05	3.15	3.25	2.95
1960 .	3.25	3.15	3.05	3.00	2.95	2.90	2.85	2.95	3.10	3.20	3.25	3.35	3.07
1970 .	4.70	4.65	4.60	4.50	4.45	4.40	4.35	4.40	4.55	4.65	4.75	4.80	4.56
1980 .	11.80	11.70	11.70	11.70	11.60	11.70	11.40	11.50	12.20	12.40	12.50	12.60	11.90
1984 .	13.10	12.70	12.30	12.00	11.80	11.60	11.60	11.90	12.40	13.00	13.10	13.10	12.30
1985 .	12.50	12.20	12.10	11.60	11.30	10.70	10.70	10.80	11.30	11.50	11.70	11.80	11.50
1986 .	11.60	11.30	10.90	10.80	10.60	10.70	10.50	10.70	11.00	11.50	11.80	12.00	11.10
1987 .	11.70	11.10	10.90	10.80	10.50	10.50	10.50	10.70	10.70	11.00	11.10	11.30	10.90
1988 .	11.00	10.60	10.50	10.20	10.10	9.90	10.00	10.70	11.40	11.90	11.90	12.10	10.90
1989 .	11.70	11.00	10.60	10.40	10.30	10.60	11.00	11.70	12.60	13.10	13.70	14.00	11.70
1990 .	13.20	11.50	11.60	11.50	11.80	12.10	12.20	12.30	12.10	10.30	10.00	10.00	11.60

1/ Average for the month. 2/ Includes surplus diverted to manufacturing.

AVERAGE PRICES RECEIVED, by Farmers, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
						SHEEP (Dollars per Hundredweight) 1/							
1950	8.60	8.60	9.30	9.50	9.00	8.50	9.00	9.00	11.00	11.50	12.00	12.50	10.60
1960	6.50	7.00	7.00	7.00	6.50	6.50	5.50	5.00	4.50	4.80	4.50	5.00	5.30
1970	7.60	7.60	7.70	8.20	7.50	8.30	8.50	8.00	7.50	6.50	6.00	6.00	7.10
1980	17.80	16.40	21.90	16.90	14.60	15.50	16.60	16.30	15.90	14.90	15.10	14.40	16.50
1984	14.60	17.20	14.80	14.80	13.70	13.20	13.40	14.30	14.60	11.50	14.20	20.50	14.10
1985	21.00	19.30	19.90	25.10	17.20	16.00	16.70	19.10	22.40	16.30	16.60	21.90	18.50
1986	23.60	28.30	27.00	20.50	16.50	17.00	19.90	21.50	24.10	17.40	21.10	26.10	21.30
1987	23.30	22.40	24.50	20.40	17.50	18.80	17.90	21.70	24.10	21.20	20.80	22.80	21.40
1988	28.00	24.70	24.80	19.00	17.40	18.50	20.70	19.70	17.00	19.20	19.80	25.30	20.00
1989	30.20	35.00	27.40	17.80	13.50	15.40	16.30	19.90	15.90	15.70	20.30	27.80	19.20
1990	27.10	22.00	19.40	16.50	13.50	15.40	22.40	22.40	18.30	17.50	16.30	19.90	18.70
						LAMBS (Dollars per Hundredweight) 1/							
1950	21.30	22.00	22.40	23.00	23.30	24.00	24.00	24.00	25.50	25.50	26.70	27.00	24.90
1960	17.80	18.30	20.00	20.00	20.00	19.50	17.80	16.70	16.10	15.20	15.20	16.20	17.00
1970	28.00	27.50	27.00	26.00	25.50	26.00	26.00	26.20	25.80	25.00	23.30	21.50	25.40
1980	63.20	59.10	60.70	55.00	51.60	63.10	64.10	63.00	66.20	66.60	56.80	53.80	61.60
1984	54.80	54.00	54.80	54.50	60.60	54.10	56.40	57.50	59.70	59.40	59.20	59.60	57.70
1985	59.00	61.00	63.30	59.50	57.50	66.00	67.50	66.90	69.30	66.40	58.70	55.60	65.70
1986	62.90	66.30	63.40	64.00	69.50	69.40	66.20	66.00	65.00	63.80	68.30	70.50	65.30
1987	72.30	70.30	75.10	71.20	75.70	76.80	74.80	72.30	72.10	69.50	68.80	69.10	71.60
1988	81.00	77.80	64.30	61.90	67.00	58.10	55.40	54.30	58.50	61.80	62.30	63.30	61.50
1989	62.00	60.20	64.70	59.60	64.30	65.50	63.00	62.80	62.70	57.40	53.30	55.00	60.50
1990	53.00	52.70	55.90	51.30	46.60	47.30	48.80	46.00	49.40	47.40	41.20	44.20	48.50
						WOOL (Dollars per Pound) 2/							
1950	.51	.51	.54	.54	.54	.57	.59	.61	.63	.66	.72	.80	.58
1960	.44	.47	.42	.44	.44	.44	.39	.40	.36	.35	.37	.37	.39
1970	.40	.35	.36	.36	.34	.37	.36	.33	.35	.32	.29	.26	.32
1980	--	.84	.98	.90	.80	.83	.87	.98	.98	.93	.94	.96	.90
1984	.62	.60	.76	.85	.90	.89	.80	.87	.66	.89	.80	.71	.84
1985	.59	.60	.59	.61	.62	.61	.62	.57	.59	.53	.61	.59	.61
1986	.47	.62	.59	.66	.66	.68	.68	.66	.67	.64	.67	.67	.66
1987	.41	.66	.78	.93	.98	.95	.94	.91	.88	.71	.61	.94	.93
1988	.99	1.20	1.40	1.40	1.38	1.34	1.37	1.42	1.31	3/	.99	1.12	1.36
1989	.87	1.21	1.24	1.31	1.34	1.30	1.32	1.30	1.30	1.56	.69	.67	1.30
1990	.64	.45	.64	.76	.77	.69	.81	.79	.64	.63	.66	.51	.72

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices. 2/ Average for the month. 3/ Insufficient sales.

County Estimates

County estimates are an integral part of agricultural statistics. These estimates provide data to compare acres, production, and yield, in different counties within the State of Utah. Crop county estimates play a major role in Federal Farm Program payments, and crop insurance settlements; thus, directly effecting many farmers and ranchers. A cooperative agreement between the Utah State Department of Agriculture, and the Utah Agricultural Statistics Service, U.S.D.A., provides funding in support of county estimates contained in this publication.

Box Elder was the "Number one" county in total grain production (wheat, barley, oats, and corn), producing over twice as many bushels as the next nearest county. Cache County is the second largest producer, followed by Utah, Millard, and Weber Counties. Box Elder was also "Number one" in acres of grain planted, followed by Cache, Utah, Millard, and San Juan.

Box Elder County was the State's largest producer of winter wheat, producing more than four times as much as Cache County, which ranked second. Millard, Utah, and San Juan Counties were also major producers of winter wheat.

Spring wheat production was also dominated by Box Elder County, followed by Millard, Cache, and Davis Counties.

Barley production was lead by Box Elder County, followed closely by Cache County. These two counties, along with Utah and Millard produced 66 percent of the barley in the State.

Duchesne was the "Number one" producer of oats in the State, followed by Utah, Cache, and Box Elder Counties.

Corn for grain production was lead by Box Elder, which produced twice as much as the next leading county, Utah. Millard and Davis Counties were next in line behind Utah County. Corn for silage production, however, was lead by Utah County, followed closely by Box Elder County.

Alfalfa hay production was lead by Millard County, followed by Cache, Iron, and Box Elder Counties. Rich was the leading county in the production of other hay, followed by Duchesne, Sanpete, and Utah.

Box Elder County had the largest inventory of cattle and calves as of January 1, 1991, followed by Cache, Millard, and Utah. Cache County continues as the major county for milk cows, with over twice the number as Box Elder, which ranked in second place. Utah, Weber, and Sanpete were also major dairy counties.

Sanpete was once again the "Number one" sheep county, with nearly twice as many sheep as the next leading county, Iron. Other major sheep counties were Summit, Utah, and Box Elder.

Preliminary indications of 1989 total cash receipts show Cache County as the "Number one" county. Utah is second, followed by Sanpete, and Box Elder. Cache was the leading county for livestock cash receipts, followed by Sanpete. Crops cash receipts were topped by Box Elder County, and followed closely by Utah County.

COUNTY ESTIMATES: by County, Selected Items & Years, Utah.

Item	Unit	State of Utah	County					
			Beaver	Box Elder	Cache	Carbon	Daggett	Davis
1990 Production								
All Wheat	Bu.	7,170,000	1/	3,163,000	876,000	1/	1/	295,000
All Barley	Bu.	8,505,000	54,000	1,701,000	1,688,000	1/	1/	148,000
Corn for Grain	Bu.	2,660,000	0	910,000	41,000	2/	2/	348,000
Corn for Silage	Tons	923,000	25,000	161,000	128,000	2/	2/	60,000
Oats	Bu.	816,000	21,400	74,000	79,000	1/	1/	1/
All Hay	Tons	2,123,000	110,800	165,500	180,000	14,800	9,500	33,500
Alfalfa & Alfalfa Mix Hay	Tons	1,843,000	101,000	150,000	164,000	14,000	5,000	28,000
Jan. 1, 1991 Inventory								
All Cattle & Calves	Head	810,000	32,000	79,000	69,000	9,000	4,000	20,000
Beef Cows	Head	321,000	10,000	29,000	6,000	7,000	2,000	5,000
Milk Cows	Head	80,000	3,000	8,000	22,000	0	0	1,500
Stock Sheep & Lambs	Head	480,000	1,000	41,000	6,000	7,900	1,000	14,000
Cash Receipts, 1989								
Livestock & Livestock Products	Mill. $	574.3	15.5	48.3	74.7	4.5	1.5	12.0
Crops	Mill. $	173.9	3.2	26.3	12.1	0.5	0.2	20.8
Total	Mill. $	748.2	18.7	74.6	86.8	5.0	1.7	32.8
1987 Census of Agriculture								
Number of Farms	Num.	14,066	226	1,088	1,223	210	36	647
Land in Farms	Acres	9,989,073	187,041	1,584,194	324,105	223,549	25,120	63,244
Harvested Cropland 3/	Acres	1,076,886	29,118	170,579	113,433	5,760	5,905	20,783
Irrigated Land 4/	Acres	1,161,207	34,959	106,686	83,771	9,051	8,237	24,539

Item	Unit	County						
		Duchesne	Emery	Garfield	Grand	Iron	Juab	Kane
1990 Production								
All Wheat	Bu.	78,000	22,000	1/	1/	31,000	187,000	1/
All Barley	Bu.	227,000	42,000	1/	1/	206,000	183,000	1/
Corn for Grain	Bu.	92,000	34,000	2/	2/	21,000	0	2/
Corn for Silage	Tons	16,000	9,000	2/	2/	14,100	9,000	2/
Oats	Bu.	90,000	41,000	14,800	1/	32,000	13,000	5,500
All Hay	Tons	128,500	43,000	32,800	8,000	169,200	45,000	11,200
Alfalfa & Alfalfa Mix Hay	Tons	98,000	39,000	28,000	7,000	160,000	41,000	9,000
Jan. 1, 1991 Inventory								
All Cattle & Calves	Head	54,000	25,000	19,000	4,000	22,000	13,000	9,000
Beef Cows	Head	26,000	13,000	11,000	3,000	10,000	9,000	5,000
Milk Cows	Head	3,000	800	300	0	1,200	200	100
Stock Sheep & Lambs	Head	14,000	8,000	3,000	100	52,000	4,000	2,000
Cash Receipts, 1989								
Livestock & Livestock Products	Mill. $	25.7	10.3	7.9	2.3	12.1	6.1	4.6
Crops	Mill. $	4.2	1.8	1.4	0.5	8.4	2.9	0.4
Total	Mill. $	29.9	12.1	9.3	2.8	20.5	9.0	5.0
1987 Census of Agriculture								
Number of Farms	Num.	753	446	263	81	380	215	152
Land in Farms	Acres	366,471	215,761	138,559	169,325	438,118	273,876	207,495
Harvested Cropland 3/	Acres	48,646	20,409	13,180	3,012	48,183	30,413	3,038
Irrigated Land 4/	Acres	97,174	38,935	22,852	4,397	61,710	22,609	7,742

1/ Less than 500 acres planted. 2/ Less than 500 acres of corn planted for all purposes. 3/ Includes land from which crops were harvested or hay was cut, and land in orchards. 4/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

COUNTY ESTIMATES: by County, Selected Items & Years, Utah.

Item	Unit	County							
		Millard	Morgan	Piute	Rich	Salt Lake	San Juan	Sanpete	Sevier
1990 Production									
All Wheat	Bu.	594,000	41,500	1/	99,500	260,000	375,000	91,000	38,000
All Barley	Bu.	1,077,000	112,000	1/	79,000	153,000	1/	403,000	358,000
Corn for Grain	Bu.	423,000	2/	2/	2/	44,0000	2/	0	53,000
Corn for Silage	Tons	36,000	2/	2/	2/	15,000	2/	28,000	86,000
Oats	Bu.	42,500	1/	15,000	1/	20,000	16,000	26,500	15,500
All Hay	Tons	261,000	28,800	31,600	82,500	37,900	10,800	126,500	101,000
Alfalfa & Alfalfa Mix Hay	Tons	252,000	24,000	26,000	31,000	34,000	9,000	105,000	94,000
Jan. 1, 1991 Inventory									
All Cattle & Calves	Head	59,000	8,000	9,000	50,000	13,000	19,000	43,000	43,000
Beef Cows	Head	17,000	3,000	5,000	27,000	4,000	11,000	15,000	13,000
Milk Cows	Head	2,500	1,500	1,200	100	1,800	100	5,800	4,000
Stock Sheep & Lambs	Head	7,000	16,000	5,000	18,000	21,000	3,000	89,000	14,000
Cash Receipts, 1989									
Livestock & Lvst Products	Mill. $	28.4	11.4	6.7	17.3	24.4	8.2	74.4	24.5
Crops	Mill. $	18.8	1.2	0.9	2.8	8.9	2.7	5.0	3.7
Total	Mill. $	47.2	12.6	7.6	20.1	33.3	10.9	79.4	28.2
1987 Census of Agriculture									
Number of Farms	Num.	630	261	126	166	734	218	761	476
Land in Farms	Acres	480,195	283,105	56,310	514,768	155,398	340,449	447,526	161,495
Harvested Cropland 3/	Acres	98,835	12,508	12,482	51,443	19,726	51,655	53,623	32,946
Irrigated Land 4/	Acres	93,419	10,369	17,710	53,998	16,030	8,544	110,744	43,475

Item	Unit	County							
		Summit	Tooele	Uintah	Utah	Wasatch	Washington	Wayne	Weber
1990 Production									
All Wheat	Bu.	1/	105,000	39,500	451,000	1/	19,000	1/	336,000
All Barley	Bu.	53,000	131,000	105,000	1,154,000	64,000	126,000	106,000	281,000
Corn for Grain	Bu.	2/	2/	82,000	455,000	2/	2/	2/	147,000
Corn for Silage	Tons	2/	2/	31,700	174,000	2/	2/	2/	96,000
Oats	Bu.	18,000	11,000	58,000	82,500	18,000	6,400	14,400	33,500
All Hay	Tons	37,000	48,000	92,200	135,500	29,200	38,900	39,500	70,800
Alfalfa & Alfalfa Mix Hay	Tons	21,000	43,000	84,000	118,000	24,000	35,000	36,000	63,000
Jan. 1, 1991 Inventory									
All Cattle & Calves	Head	18,000	19,000	41,000	55,000	11,000	17,000	18,000	28,000
Beef Cows	Head	9,000	14,000	24,000	16,000	3,000	9,000	11,000	4,000
Milk Cows	Head	2,100	100	1,300	8,500	2,700	100	1,100	7,000
Stock Sheep & Lambs	Head	42,000	12,000	23,000	41,000	15,000	1,000	12,000	7,000
Cash Receipts, 1989									
Livestock & Lvst Products	Mill. $	16.4	9.7	19.9	57.0	9.5	7.1	9.0	24.9
Crops	Mill. $	1.2	2.8	3.4	25.1	1.2	5.7	1.4	6.4
Total	Mill. $	17.6	12.5	23.3	82.1	10.7	12.8	10.4	31.3
1987 Census of Agriculture									
Number of Farms	Num.	439	299	693	1,723	298	414	217	891
Land in Farms	Acres	348,827	487,427	1,318,672	493,902	159,854	178,169	101,622	199,496
Harvested Cropland 3/	Acres	20,451	19,563	39,616	87,089	11,809	9,641	14,801	28,239
Irrigated Land 4/	Acres	29,429	18,972	75,958	78,659	16,955	14,467	18,293	31,523

1/ Less than 500 acres planted. 2/ Less than 500 acres of corn planted for all purposes. 3/ Includes land from which crops were harvested or hay was cut, and land in orchards. 4/ Includes all land watered by any artificial or controlled means, such as sprinklers, furrows or ditches, and spreader dikes.

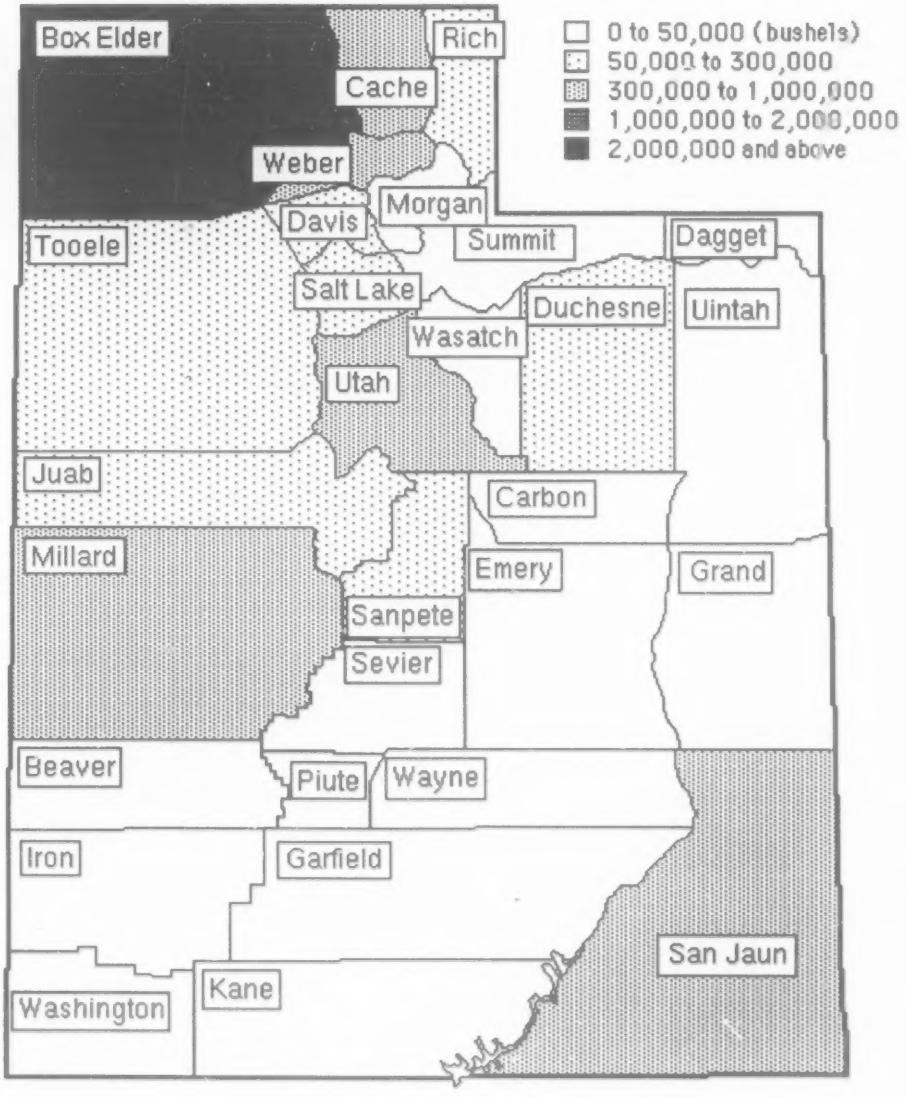
COUNTY ESTIMATES: All Wheat, All Cropping Practices, Utah, 1990.

District and County	Acres Planted	Acres Harvested for Grain	Yield per Harvested Acre	Production
			----- Bushels -----	
NORTHERN				
Box Elder	68,500	67,000	47.2	3,163,000
Cache	20,500	19,200	45.6	876,000
Davis	4,000	3,800	77.6	295,000
Morgan	1,000	900	46.1	41,500
Rich	3,500	3,200	31.1	99,500
Salt Lake	11,000	10,600	24.5	260,000
Tooele	3,000	2,800	37.5	105,000
Weber	4,500	4,000	84.0	336,000
Total	116,000	111,500	46.4	5,176,000
CENTRAL				
Juab	6,900	6,600	28.3	187,000
Millard	12,000	11,000	54.0	594,000
Sanpete	1,700	1,500	60.7	91,000
Sevier	600	600	63.3	38,000
Utah	15,800	15,300	29.5	451,000
Total	37,000	35,000	38.9	1,361,000
EASTERN				
Carbon	*	*	*	*
Daggett	*	*	*	*
Duchesne	1,200	1,100	70.9	78,000
Emery	500	400	55.0	22,000
Grand	*	*	*	*
San Juan	26,000	24,400	15.4	375,000
Summit	*	*	*	*
Uintah	1,200	1,100	35.9	39,500
Wasatch	*	*	*	*
Other	600	600	39.2	23,500
Total	29,500	27,600	19.5	538,000
SOUTHERN				
Beaver	*	*	*	*
Garfield	*	*	*	*
Iron	600	500	62.0	31,000
Kane	*	*	*	*
Piute	*	*	*	*
Washington	1,000	700	27.1	19,000
Wayne	*	*	*	*
Other	900	700	64.3	45,000
Total	2,500	1,900	50.0	95,000
STATE	185,000	176,000	40.7	7,170,000

* Less than 500 planted acres, combined with other counties.

Utah All Wheat Production

By Counties, 1990



COUNTY ESTIMATES: All Wheat, by Cropping Practice, Utah, 1990.

District and County	Irrigated				Non-Irrigated			
	Acreage		Harvested Yield	Production	Acreage		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	--- Acres ---		----- Bushels -----		--- Acres ---		----- Bushels -----	
NORTHERN								
Box Elder ...	22,000	21,600	90.7	1,959,000	46,500	45,400	26.5	1,204,000
Cache	6,200	5,900	71.5	422,000	14,300	13,300	34.1	454,000
Davis	3,400	3,200	89.1	285,000	600	600	16.7	10,000
Morgan	400	400	77.5	31,000	600	500	21.0	10,500
Rich	500	500	78.0	39,000	3,000	2,700	22.4	60,500
Salt Lake	1,100	1,000	76.0	76,000	9,900	9,600	19.2	184,000
Tooele	1,400	1,300	57.7	75,000	1,600	1,500	20.0	30,000
Weber	4,000	3,600	91.1	328,000	500	400	20.0	8,000
Total	39,000	37,500	85.7	3,215,000	77,000	74,000	26.5	1,961,000
CENTRAL								
Juab	2,000	1,900	54.7	104,000	4,900	4,700	17.7	83,000
Millard	7,700	7,200	72.2	520,000	4,300	3,800	19.5	74,000
Sanpete	1,500	1,400	63.6	89,000	200	100	20.0	2,000
Sevier	600	600	63.3	38,000	0	0		0
Utah	3,700	3,500	81.1	284,000	12,100	11,800	14.2	167,000
Total	15,500	14,600	70.9	1,035,000	21,500	20,400	16.0	326,000
EASTERN								
Carbon	*	*	*	*	*	*	*	*
Daggett	*	*	*	*	*	*	*	*
Duchesne	1,200	1,100	70.9	78,000	0	0		0
Emery	500	400	55.0	22,000	0	0		0
Grand	*	*	*	*	*	*	*	*
San Juan	300	200	70.0	14,000	25,700	24,200	14.9	361,000
Summit	*	*	*	*	*	*	*	*
Uintah	600	600	51.7	31,000	600	500	17.0	8,500
Wasatch	*	*	*	*	*	*	*	*
Other	400	400	52.5	21,000	200	200	12.5	2,500
Total	3,000	2,700	61.5	166,000	26,500	24,900	14.9	372,000
SOUTHERN								
Beaver	*	*	*	*	*	*	*	*
Garfield	*	*	*	*	*	*	*	*
Iron	500	400	70.0	28,000	100	100	30.0	3,000
Kane	*	*	*	*	*	*	*	*
Piute	*	*	*	*	*	*	*	*
Washington ..	200	100	60.0	6,000	800	600	21.7	13,000
Wayne	*	*	*	*	*	*	*	*
Other	800	700	64.3	45,000	100	0		0
Total	1,500	1,200	65.8	79,000	1,000	700	22.9	16,000
STATE	59,000	56,000	80.3	4,495,000	126,000	120,000	22.3	2,675,000

* Less than 500 acres planted for all cropping practices, combined with other counties.

COUNTY ESTIMATES: Winter Wheat, All Cropping Practices, Utah, 1990.

District and County	Acres Planted	Acres Harvested for Grain	Yield per Harvested Acre	Production
			--- Bushels ---	
NORTHERN				
Box Elder	62,000	61,100	47.9	2,924,000
Cache	16,000	15,500	46.8	726,000
Davis	2,500	2,500	75.6	189,000
Morgan	500	500	46.0	23,000
Rich	2,500	2,400	29.6	71,000
Salt Lake	9,000	8,800	23.6	208,000
Tooele	2,500	2,400	36.7	88,000
Weber	3,000	2,800	89.3	250,000
Total	98,000	96,000	46.7	4,479,000
CENTRAL				
Juab	6,000	5,900	28.0	165,000
Millard	9,000	8,500	52.1	443,000
Sanpete	600	500	60.0	30,000
Sevier	400	400	70.0	28,000
Utah	14,000	13,700	28.2	387,000
Total	30,000	29,000	36.3	1,053,000
EASTERN				
Carbon	*	*	*	*
Daggett	*	*	*	*
Duchesne	200	200	75.0	15,000
Emery	200	200	65.0	13,000
Grand	*	*	*	*
San Juan	24,000	22,500	15.4	346,000
Summit	*	*	*	*
Uintah	300	300	51.7	15,500
Wasatch	0	*	*	*
Other	300	300	28.3	8,500
Total	25,000	23,500	16.9	398,000
SOUTHERN				
Beaver	*	*	*	*
Garfield	*	*	*	*
Iron	500	400	62.5	25,000
Kane	*	*	*	*
Piute	*	*	*	*
Washington	1,000	700	27.1	19,000
Wayne	*	*	*	*
Other	500	400	65.0	26,000
Total	2,000	1,500	46.7	70,000
STATE	155,000	150,000	40.0	6,000,000

* Less than 500 planted acres of all wheat, combined with other counties.

COUNTY ESTIMATES: Spring Wheat, All Cropping Practices, Utah, 1990.

District and County	Acres Planted	Acres Harvested for Grain	Yield per Harvested Acre	Production
			--- Bushels ---	
NORTHERN				
Box Elder	6,500	5,900	40.5	239,000
Cache	4,500	3,700	40.5	150,000
Davis	1,500	1,300	81.5	106,000
Morgan	500	400	46.3	18,500
Rich	1,000	800	35.6	28,500
Salt Lake	2,000	1,800	28.9	52,000
Tooele	500	400	42.5	17,000
Weber	1,500	1,200	71.7	86,000
Total	18,000	15,500	45.0	697,000
CENTRAL				
Juab	900	700	31.4	22,000
Millard	3,000	2,500	60.4	151,000
Sanpete	1,100	1,000	61.0	61,000
Sevier	200	200	50.0	10,000
Utah	1,800	1,600	40.0	64,000
Total	7,000	6,000	51.3	308,000
EASTERN				
Carbon	*	*	*	*
Daggett	*	*	*	*
Duchesne	1,000	900	70.0	63,000
Emery	300	200	45.0	9,000
Grand	*	*	*	*
San Juan	2,000	1,900	15.3	29,000
Summit	*	*	*	*
Uintah	900	800	30.0	24,000
Wasatch	*	*	*	*
Other	300	300	50.0	15,000
Total	4,500	4,100	34.1	140,000
SOUTHERN				
Beaver	*	*	*	*
Garfield	*	*	*	*
Iron	100	100	60.0	6,000
Kane	*	*	*	*
Piute	*	*	*	*
Washington	*	*	*	*
Wayne	*	*	*	*
Other	400	300	63.3	19,000
Total	500	400	62.5	25,000
STATE	30,000	26,000	45.0	1,170,000

* Less than 500 planted acres of all wheat, combined with other counties.

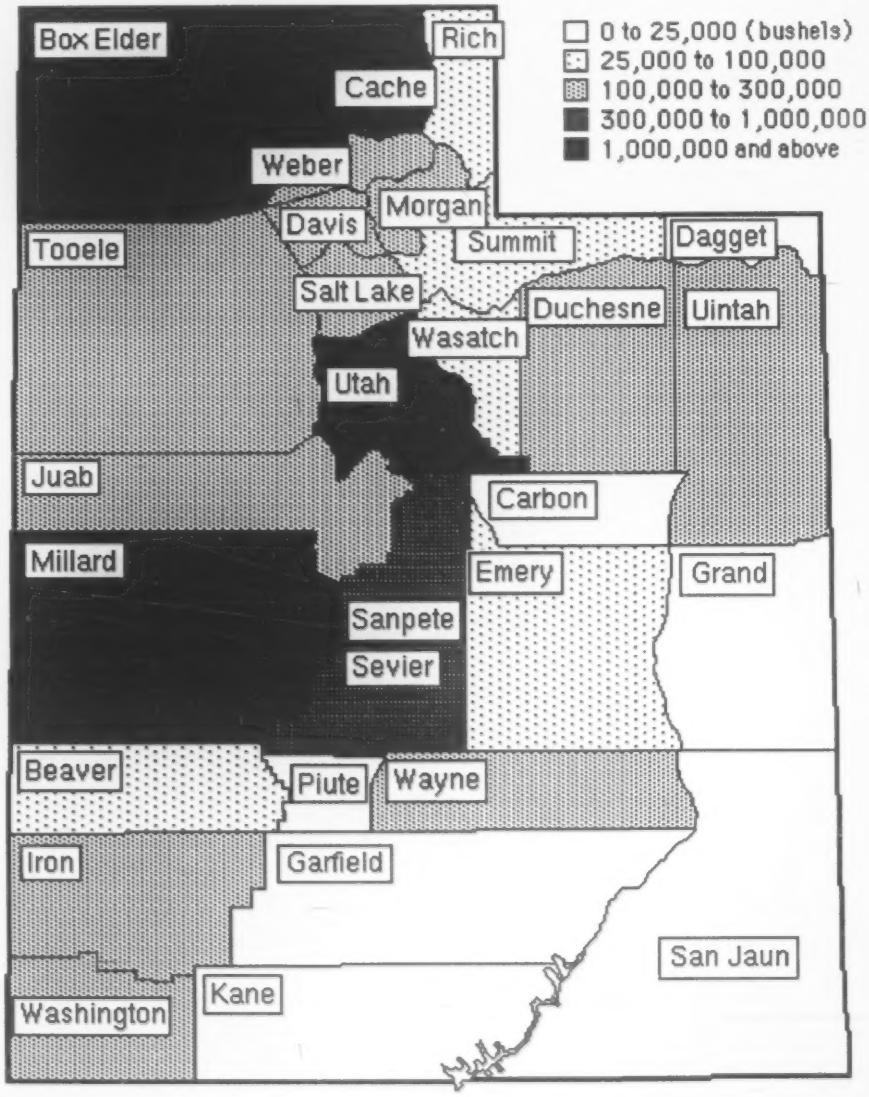
COUNTY ESTIMATES: All Barley, All Cropping Practices, Utah, 1990.

District and County	Acres Planted	Acres Harvested for Grain	Yield per Harvested Acre	Production
			--- Bushels ---	
NORTHERN				
Box Elder	21,500	20,000	85.1	1,701,000
Cache	24,000	23,000	73.4	1,688,000
Davis	2,000	1,900	77.9	148,000
Morgan	1,500	1,400	80.0	112,000
Rich	1,500	1,400	56.4	79,000
Salt Lake	2,000	2,000	76.5	153,000
Tooele	2,000	1,900	68.9	131,000
Weber	3,500	3,400	82.6	281,000
Total	58,000	55,000	78.1	4,293,000
CENTRAL				
Juab	3,000	2,700	67.8	183,000
Millard	14,000	12,000	89.8	1,077,000
Sanpete	6,000	5,100	79.0	403,000
Sevier	5,000	4,200	85.2	358,000
Utah	14,000	13,000	88.8	1,154,000
Total	42,000	37,000	85.8	3,175,000
EASTERN				
Carbon	*	*	*	*
Daggett	*	*	*	*
Duchesne	2,800	2,600	87.3	227,000
Emery	800	700	60.0	42,000
Grand	*	*	*	*
San Juan	*	*	*	*
Summit	800	700	75.7	53,000
Uintah	1,500	1,400	75.0	105,000
Wasatch	800	800	80.0	64,000
Other	300	300	36.7	11,000
Total	7,000	6,500	77.2	502,000
SOUTHERN				
Beaver	800	600	90.0	54,000
Garfield	*	*	*	*
Iron	2,600	2,400	85.8	206,000
Kane	*	*	*	*
Piute	*	*	*	*
Washington	2,200	1,700	74.1	126,000
Wayne	1,700	1,200	88.3	106,000
Other	700	600	71.7	43,000
Total	8,000	6,500	82.3	535,000
STATE	115,000	105,000	81.0	8,505,000

* Less than 500 planted acres, combined with other counties.

Utah Barley Production

By Counties, 1990



COUNTY ESTIMATES: All Barley, by Cropping Practice, Utah, 1990.

District and County	Irrigated				Non-Irrigated			
	Acreage		Harvested Yield	Production	Acreage		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	Acres		Bushels		Acres		Bushels	
NORTHERN								
Box Elder	17,000	15,800	99.1	1,565,000	4,500	4,200	32.4	136,000
Cache	17,800	17,300	86.3	1,493,000	6,200	5,700	34.2	195,000
Davis	1,800	1,700	83.5	142,000	200	200	30.0	6,000
Morgan	1,400	1,300	84.6	110,000	100	100	20.0	2,000
Rich	1,300	1,200	60.0	72,000	200	200	35.0	7,000
Salt Lake	1,800	1,800	82.2	148,000	200	200	25.0	5,000
Tooele	1,600	1,500	80.0	120,000	400	400	27.5	11,000
Weber	3,300	3,200	85.0	272,000	200	200	45.0	9,000
Total	46,000	43,800	89.5	3,922,000	12,000	11,200	33.1	371,000
CENTRAL								
Juab	2,800	2,500	72.0	180,000	200	200	15.0	3,000
Millard	13,800	11,800	90.9	1,073,000	200	200	20.0	4,000
Sanpete	6,000	5,100	79.0	403,000	0	0		0
Sevier	4,700	3,900	90.0	351,000	300	300	23.3	7,000
Utah	13,400	12,500	91.5	1,144,000	600	500	20.0	10,000
Total	40,700	35,800	88.0	3,151,000	1,300	1,200	20.0	24,000
EASTERN								
Carbon	•	•	•	•	•	•	•	•
Daggett	•	•	•	•	•	•	•	•
Duchesne	2,600	2,500	90.0	225,000	200	100	20.0	2,000
Emery	800	700	60.0	42,000	0	0		0
Grand	•	•	•	•	•	•	•	•
San Juan	•	•	•	•	•	•	•	•
Summit	700	600	85.0	51,000	100	100	20.0	2,000
Uintah	1,500	1,400	75.0	105,000	0	0		0
Wasatch	800	800	80.0	64,000	0	0		0
Other	100	100	70.0	7,000	200	200	20.0	4,000
Total	6,500	6,100	81.0	494,000	500	400	20.0	8,000
SOUTHERN								
Beaver	800	600	90.0	54,000	0	0		0
Garfield	•	•	•	•	•	•		•
Iron	2,600	2,400	85.8	206,000	0	0		0
Kane	•	•	•	•	•	•	•	•
Piute	•	•	•	•	•	•	•	•
Washington	2,000	1,500	80.0	120,000	200	200	30.0	6,000
Wayne	1,700	1,200	88.3	106,000	0	0		0
Other	700	600	71.7	43,000	0	0		0
Total	7,800	6,300	84.0	529,000	200	200	30.0	6,000
STATE	101,000	92,000	88.0	8,096,000	14,000	13,000	31.5	409,000

• Less than 500 acres planted for all cropping practices, combined with other counties.

COUNTY ESTIMATES: Corn, All Cropping Practices, Utah, 1990.

District and County	Acres Planted All Purposes	Corn for Grain			Corn for Silage		
		Acres Harvested	Yield	Production	Acres Harvested	Yield	Production
			- - - - - Bushels - - - - -			- - - - - Tons - - - - -	
NORTHERN							
Box Elder	13,100	6,000	151.7	910,000	7,000	23.0	161,000
Cache	6,300	300	136.7	41,000	6,000	21.3	128,000
Davis	5,100	2,400	145.0	348,000	2,700	22.2	60,000
Morgan	•	•	•	•	•	•	•
Rich	•	•	•	•	•	•	•
Salt Lake	1,100	300	146.7	44,000	800	18.8	15,000
Tooele	•	•	•	•	•	•	•
Weber	5,400	1,000	147.0	147,000	4,300	22.3	96,000
Other	700	0	0.0	0	700	20.0	14,000
Total	31,700	10,000	149.0	1,490,000	21,500	22.0	474,000
CENTRAL							
Juab	500	0	0.0	0	500	18.0	9,000
Millard	4,800	3,000	141.0	423,000	1,800	20.0	36,000
Sanpete	1,400	0	0.0	0	1,400	20.0	28,000
Sevier	4,900	400	132.5	53,000	4,500	19.1	86,000
Utah	12,000	3,400	133.8	455,000	8,500	20.5	174,000
Total	23,600	6,800	136.9	931,000	16,700	19.9	333,000
EASTERN							
Carbon	•	•	•	•	•	•	•
Daggett	•	•	•	•	•	•	•
Duchesne	1,800	800	115.0	92,000	900	17.8	16,000
Emery	1,100	300	113.3	34,000	600	15.0	9,000
Grand	•	•	•	•	•	•	•
San Juan	•	•	•	•	•	•	•
Summit	•	•	•	•	•	•	•
Uintah	3,000	800	102.5	82,000	1,900	16.7	31,700
Wasatch	•	•	•	•	•	•	•
Other	700	100	100.0	10,000	600	17.2	10,300
Total	6,600	2,000	109.0	218,000	4,000	16.8	67,000
SOUTHERN							
Beaver	1,500	0	0.0	0	1,400	17.9	25,000
Garfield	•	•	•	•	•	•	•
Iron	1,000	200	105.0	21,000	800	17.6	14,100
Kane	•	•	•	•	•	•	•
Piute	•	•	•	•	•	•	•
Washington	•	•	•	•	•	•	•
Wayne	•	•	•	•	•	•	•
Other	600	0	0.0	0	600	16.5	9,900
Total	3,100	200	105.0	21,000	2,800	17.5	49,000
STATE	65,000	19,000	140.0	2,660,000	45,000	20.5	923,000

• Less than 500 acres planted for all purposes, combined with other counties.

COUNTY ESTIMATES: Oats, All Cropping Practices, Utah, 1990.

District and County	Acres Planted	Acres Harvested for Grain	Yield per Acre	Production
			--- Bushels ---	
NORTHERN				
Box Elder	1,700	1,000	74.0	74,000
Cache	2,300	1,100	71.8	79,000
Davis	•	•	•	•
Morgan	•	•	•	•
Rich	•	•	•	•
Salt Lake	600	300	66.7	20,000
Tooele	600	200	55.0	11,000
Weber	1,000	400	83.8	33,500
Other	1,300	500	69.0	34,500
Total	7,500	3,500	72.0	252,000
CENTRAL				
Juab	600	200	65.0	13,000
Millard	3,000	600	70.8	42,500
Sanpete	2,100	400	66.3	26,500
Sevier	1,900	200	77.5	15,500
Utah	2,400	1,100	75.0	82,500
Total	10,000	2,500	72.0	180,000
EASTERN				
Carbon	•	•	•	•
Daggett	•	•	•	•
Duchesne	3,000	1,200	75.0	90,000
Emery	1,200	700	58.6	41,000
Grand	•	•	•	•
San Juan	1,100	600	26.7	16,000
Summit	600	300	60.0	18,000
Uintah	1,800	1,000	58.0	58,000
Wasatch	900	200	90.0	18,000
Other	900	500	67.0	33,500
Total	9,500	4,500	61.0	274,500
SOUTHERN				
Beaver	3,000	300	71.3	21,400
Garfield	2,200	200	74.0	14,800
Iron	3,500	400	80.0	32,000
Kane	700	100	55.0	5,500
Piute	900	200	75.0	15,000
Washington	1,000	100	64.0	6,400
Wayne	1,700	200	72.0	14,400
Total	13,000	1,500	73.0	109,500
STATE	40,000	12,000	68.0	816,000

• Less than 500 planted acres, combined with other counties.

COUNTY ESTIMATES: All Hay, All Cropping Practices, Utah, 1990.

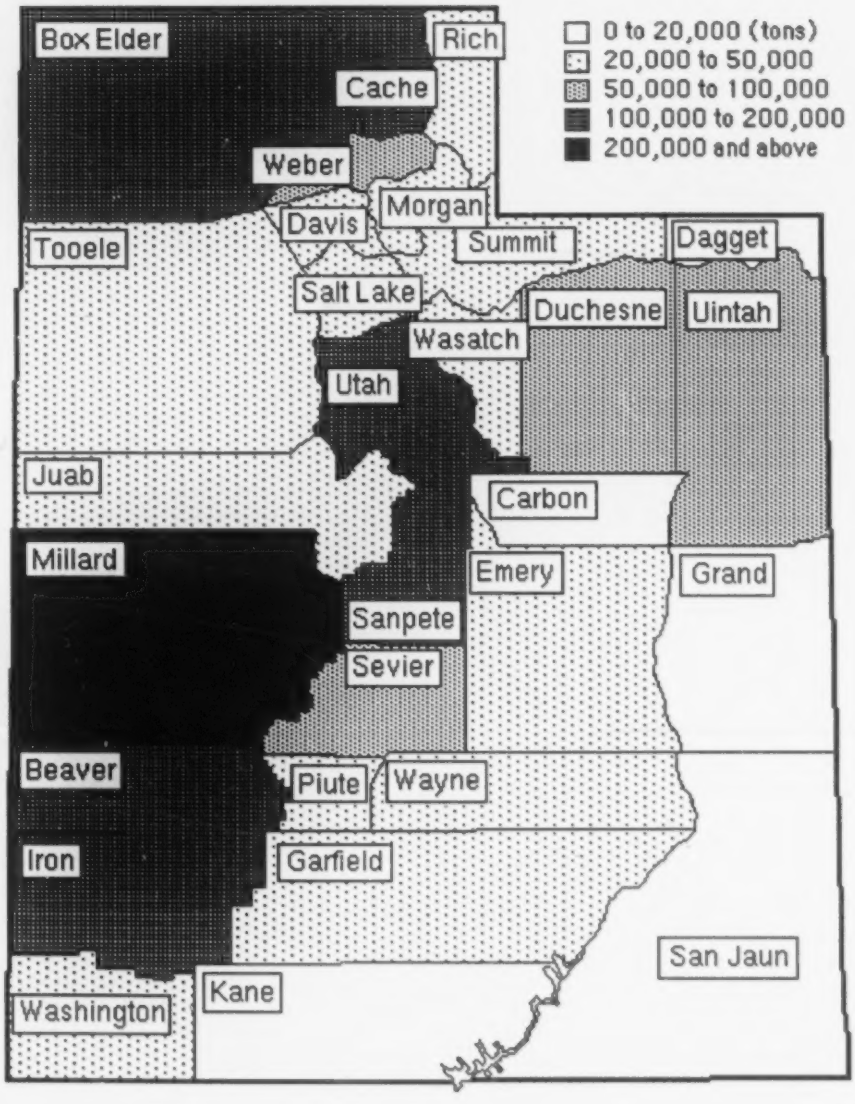
District and County	Acres Harvested	Yield per Acre	Production
		Tons	
NORTHERN			
Box Elder	47,500	3.48	165,500
Cache	56,500	3.19	180,000
Davis	8,500	3.94	33,500
Morgan	9,000	3.20	28,800
Rich	43,500	1.90	82,500
Salt Lake	9,500	3.99	37,900
Tooele	14,500	3.31	48,000
Weber	17,000	4.17	70,800
Total	206,000	3.14	647,000
CENTRAL			
Juab	15,000	3.00	45,000
Millard	61,000	4.28	261,000
Sanpete	40,500	3.12	126,500
Sevier	24,000	4.21	101,000
Utah	34,500	3.93	135,500
Total	175,000	3.82	669,000
EASTERN			
Carbon	5,500	2.69	14,800
Daggett	5,000	1.90	9,500
Duchesne	45,000	2.86	128,500
Emery	15,000	2.87	43,000
Grand	2,500	3.20	8,000
San Juan	5,000	2.16	10,800
Summit	16,500	2.24	37,000
Uintah	29,500	3.13	92,200
Wasatch	9,000	3.24	29,200
Total	133,000	2.81	373,000
SOUTHERN			
Beaver	27,000	4.10	110,800
Garfield	11,500	2.85	32,800
Iron	38,000	4.45	169,200
Kane	3,500	3.20	11,200
Piute	10,500	3.01	31,600
Washington	8,500	4.58	38,900
Wayne	12,000	3.29	39,500
Total	111,000	3.91	434,000
STATE	625,000	3.40	2,123,000

COUNTY ESTIMATES: Alfalfa & Alfalfa Mixtures for Hay, All Cropping Practices, Utah, 1990.

District and County	Acres Harvested	Yield per Acre	Production
		- - - - - Tons - - - - -	
NORTHERN			
Box Elder	39,500	3.80	150,000
Cache	48,000	3.42	164,000
Davis	6,500	4.31	28,000
Morgan	7,000	3.43	24,000
Rich	10,000	3.10	31,000
Salt Lake	8,000	4.25	34,000
Tooele	12,000	3.58	43,000
Weber	14,000	4.50	63,000
Total	145,000	3.70	537,000
CENTRAL			
Juab	13,000	3.15	41,000
Millard	57,000	4.42	252,000
Sanpete	30,000	3.50	105,000
Sevier	21,000	4.48	94,000
Utah	26,000	4.54	118,000
Total	147,000	4.15	610,000
EASTERN			
Carbon	5,000	2.80	14,000
Daggett	2,000	2.50	5,000
Duchesne	30,000	3.27	98,000
Emery	13,000	3.00	39,000
Grand	2,000	3.50	7,000
San Juan	4,000	2.25	9,000
Summit	9,000	2.33	21,000
Uintah	25,000	3.36	84,000
Wasatch	7,000	3.43	24,000
Total	97,000	3.10	301,000
SOUTHERN			
Beaver	23,500	4.30	101,000
Garfield	9,500	2.95	28,000
Iron	35,000	4.57	160,000
Kane	2,500	3.60	9,000
Piute	8,000	3.25	26,000
Washington	7,000	5.00	35,000
Wayne	10,500	3.43	36,000
Total	96,000	4.12	395,000
STATE	485,000	3.80	1,843,000

Utah Alfalfa Hay Production

By Counties, 1990



COUNTY ESTIMATES: Other Hay, All Cropping Practices, Utah, 1990.

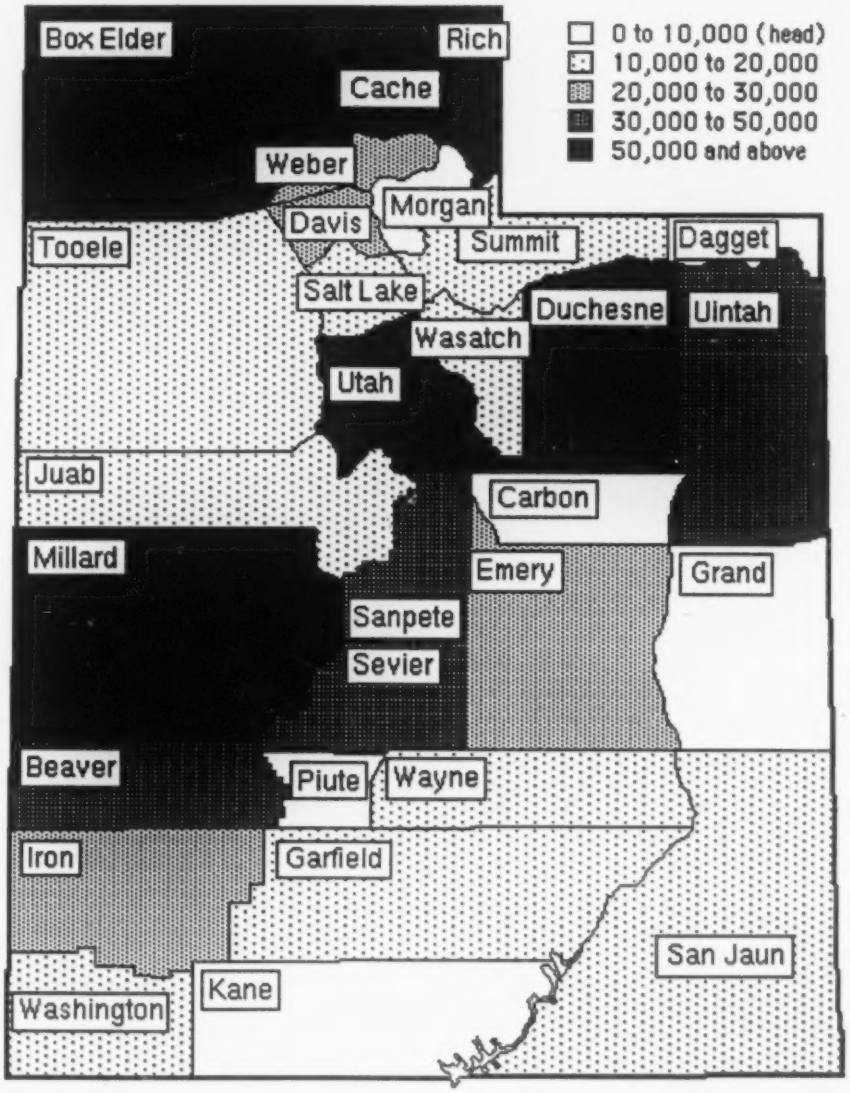
District and County	Acres Harvested	Yield per Acre	Production
		Tons	
NORTHERN			
Box Elder	8,000	1.94	15,500
Cache	8,500	1.88	16,000
Davis	2,000	2.75	5,500
Morgan	2,000	2.40	4,800
Rich	33,500	1.54	51,500
Salt Lake	1,500	2.60	3,900
Tooele	2,500	2.00	5,000
Weber	3,000	2.60	7,800
Total	61,000	1.80	110,000
CENTRAL			
Juab	2,000	2.00	4,000
Millard	4,000	2.25	9,000
Sanpete	10,500	2.05	21,500
Sevier	3,000	2.33	7,000
Utah	8,500	2.06	17,500
Total	28,000	2.11	59,000
EASTERN			
Carbon	500	1.60	800
Daggett	3,000	1.50	4,500
Duchesne	15,000	2.03	30,500
Emery	2,000	2.00	4,000
Grand	500	2.00	1,000
San Juan	1,000	1.80	1,800
Summit	7,500	2.13	16,000
Uintah	4,500	1.82	8,200
Wasatch	2,000	2.60	5,200
Total	36,000	2.00	72,000
SOUTHERN			
Beaver	3,500	2.80	9,800
Garfield	2,000	2.40	4,800
Iron	3,000	3.07	9,200
Kane	1,000	2.20	2,200
Piute	2,500	2.24	5,600
Washington	1,500	2.60	3,900
Wayne	1,500	2.33	3,500
Total	15,000	2.60	39,000
STATE	140,000	2.00	280,000

COUNTY ESTIMATES: Potatoes, All Cropping Practices, Utah, 1989-1990.

County	Acres Harvested		Yield per Acre		Production	
	1989	1990	1989	1990	1989	1990
			Hundredweight			
Davis	900	900	298	327	268,000	294,000
Millard	1,100	1,400	300	312	330,000	437,000
Iron & Washington	3,900	3,600	220	235	859,000	846,000
Other Counties	200	300	190	220	38,000	66,000
STATE TOTAL	6,100	6,200	245	265	1,495,000	1,643,000

Utah All Cattle Inventory

By Counties, January 1, 1991



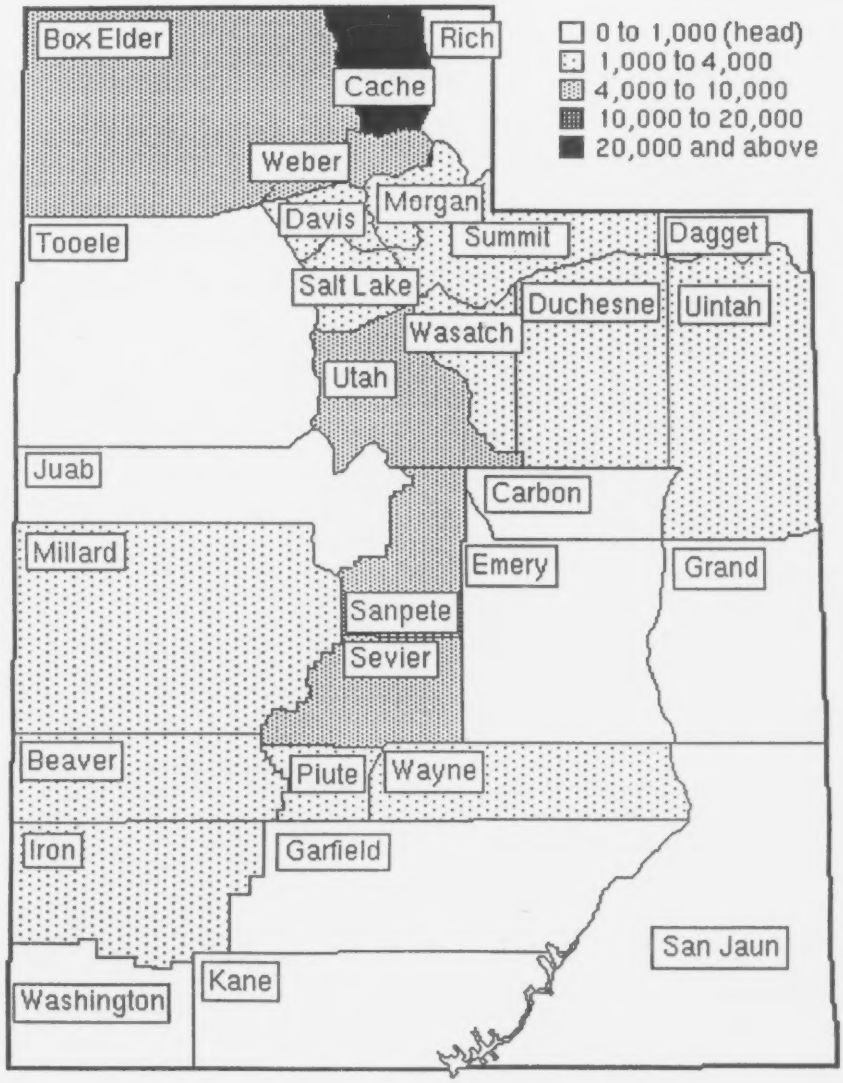
COUNTY ESTIMATES: Cattle, Utah, January 1, 1990-91

County	All Cattle		All Cows		Beef Cows		Milk Cows	
	1990	1991	1990	1991	1990	1991	1990	1991
NORTHERN								
Box Elder	73,000	79,000	38,000	37,000	29,000	29,000	9,000	8,000
Cache	64,000	69,000	27,400	28,000	6,000	6,000	21,400	22,000
Davis	20,000	20,000	6,600	6,500	5,000	5,000	1,600	1,500
Morgan	9,000	8,000	4,500	4,500	3,000	3,000	1,500	1,500
Rich	44,000	50,000	1/ 27,000	1/ 27,000	27,000	27,000	2/	2/
Salt Lake	12,000	13,000	5,500	5,800	4,000	4,000	1,500	1,800
Tooele	20,000	19,000	1/ 15,000	1/ 14,000	15,000	14,000	2/	2/
Weber	26,000	28,000	10,800	11,000	4,000	4,000	6,800	7,000
Total	268,000	286,000	134,800	133,800	93,000	92,000	41,800	41,800
CENTRAL								
Juab	13,000	13,000	1/ 9,000	1/ 9,000	9,000	9,000	2/	2/
Millard	57,000	59,000	20,000	19,500	17,000	17,000	3,000	2,500
Sanpete	43,000	43,000	22,000	20,800	16,000	15,000	6,000	5,800
Sevier	38,000	43,000	16,300	17,000	13,000	13,000	3,300	4,000
Utah	49,000	55,000	24,500	24,500	16,000	16,000	8,500	8,500
Total	200,000	213,000	91,800	90,800	71,000	70,000	20,800	20,800
EASTERN								
Carbon	10,000	9,000	1/ 7,000	1/ 7,000	7,000	7,000	2/	2/
Daggett	4,000	4,000	1/ 2,000	1/ 2,000	2,000	2,000	2/	2/
Duchesne	50,000	54,000	28,300	29,000	25,000	26,000	3,300	3,000
Emery	24,000	25,000	13,700	13,800	13,000	13,000	700	800
Grand	5,000	4,000	1/ 3,000	1/ 3,000	3,000	3,000	2/	2/
San Juan	21,000	19,000	1/ 12,000	1/ 11,000	12,000	11,000	2/	2/
Summit	18,000	18,000	11,000	11,100	9,000	9,000	2,000	2,100
Uintah	43,000	41,000	25,400	25,300	24,000	24,000	1,400	1,300
Wasatch	11,000	11,000	5,500	5,700	3,000	3,000	2,500	2,700
Total	186,000	185,000	107,900	107,900	98,000	98,000	9,900	9,900
SOUTHERN								
Beaver	29,000	32,000	13,100	13,000	10,000	10,000	3,100	3,000
Garfield	20,000	19,000	1/ 11,000	1/ 11,000	11,000	11,000	2/	2/
Iron	20,000	22,000	11,200	11,200	10,000	10,000	1,200	1,200
Kane	10,000	9,000	1/ 5,000	1/ 5,000	5,000	5,000	2/	2/
Piute	11,000	9,000	7,300	6,200	6,000	5,000	1,300	1,200
Washington	19,000	17,000	1/ 10,000	1/ 9,000	10,000	9,000	2/	2/
Wayne	17,000	18,000	11,800	12,100	11,000	11,000	800	1,100
Total	126,000	126,000	69,400	67,500	63,000	61,000	6,400	6,500
Counties with less than 500 head			1,100	1,000			1,100	1,000
State	780,000	810,000	405,000	401,000	325,000	321,000	80,000	80,000

1/ Milk cows excluded from county total, but included in total of counties with less than 500 milk cows. 2/ Included in total of counties with less than 500 milk cows.

Utah Milk Cow Numbers

By Counties, January 1, 1991

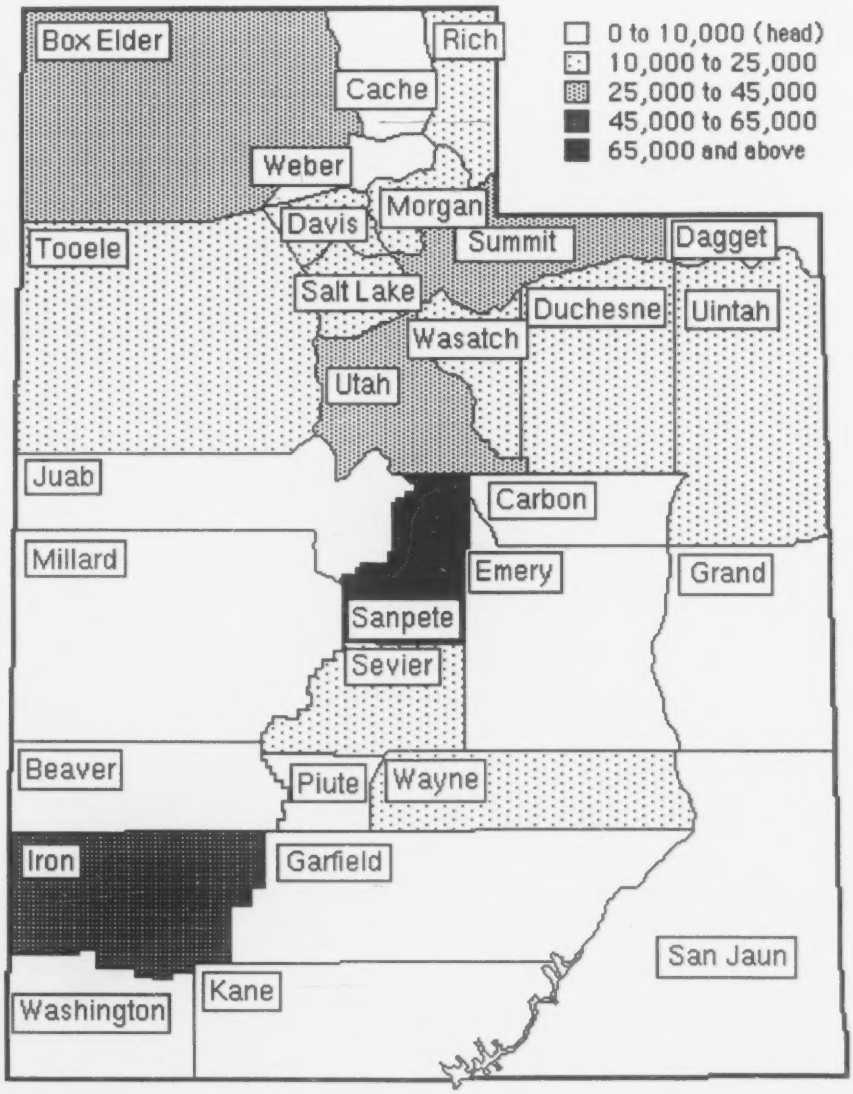


COUNTY ESTIMATES: Stock Sheep and Lambs, Utah, January 1, 1990-91

District and County	1990	1991
NORTHERN		
Box Elder	38,000	41,000
Cache	7,000	6,000
Davis	11,000	14,000
Morgan	17,000	16,000
Rich	19,000	18,000
Salt Lake	18,000	21,000
Tooele	14,000	12,000
Weber	6,000	7,000
Total	130,000	135,000
CENTRAL		
Juab	4,000	4,000
Millard	9,000	7,000
Sanpete	85,000	89,000
Sevier	15,000	14,000
Utah	43,000	41,000
Total	156,000	155,000
EASTERN		
Carbon	7,500	7,900
Daggett	900	1,000
Duchesne	18,000	14,000
Emery	7,500	8,000
Grand	100	100
San Juan	3,000	3,000
Summit	39,000	42,000
Uintah	26,000	23,000
Wasatch	16,000	15,000
Total	118,000	114,000
SOUTHERN		
Beaver	1,000	1,000
Garfield	4,000	3,000
Iron	55,000	52,000
Kane	2,000	2,000
Piute	5,500	5,000
Washington	1,000	1,000
Wayne	12,500	12,000
Total	81,000	76,000
STATE	485,000	480,000

UTAH STOCK SHEEP INVENTORY

By Counties, January 1, 1991

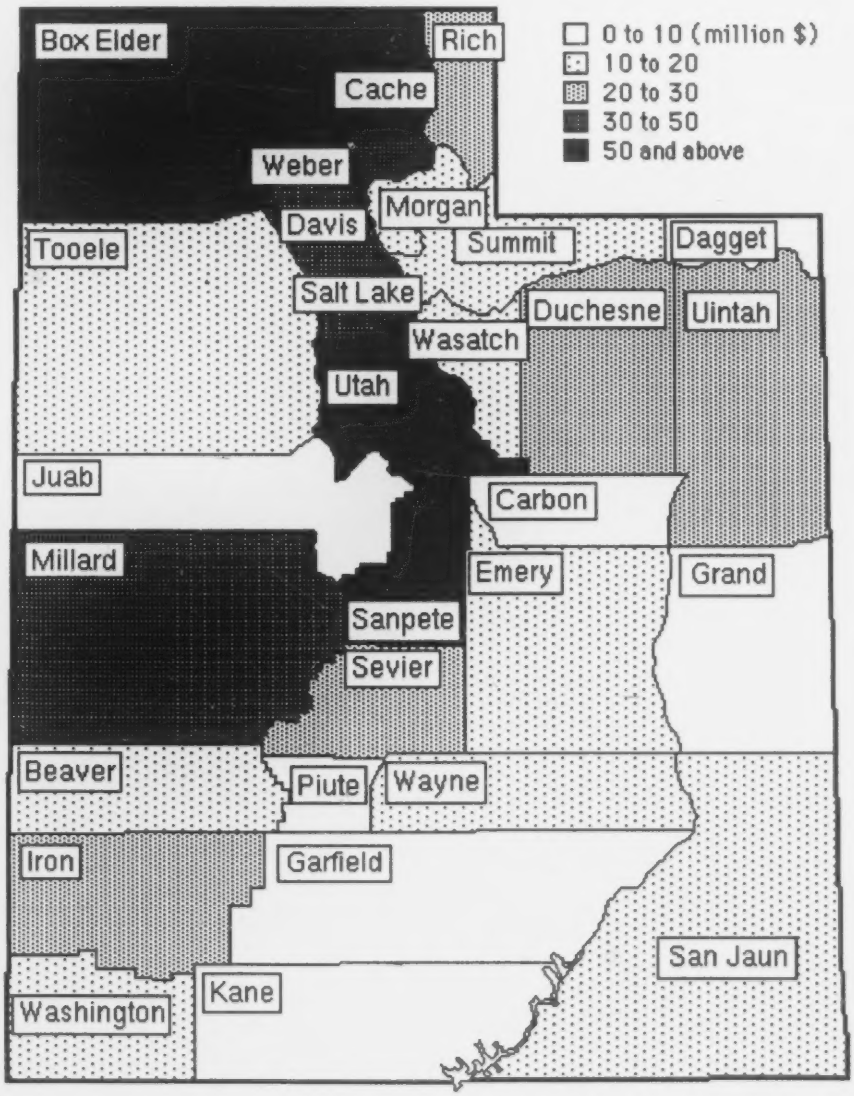


COUNTY ESTIMATES: Cash Receipts from Farming, by County - 1988 Revised, 1989 Preliminary.

County	Livestock and Livestock Products		Crops		Total	
	1988	1989	1988	1989	1988	1989
	Million Dollars					
NORTHERN						
Box Elder	42.7	48.3	26.6	26.3	69.3	74.6
Cache	67.2	74.7	12.4	12.1	79.6	86.8
Davis	10.6	12.0	20.6	20.8	31.2	32.8
Morgan	12.4	11.4	1.1	1.2	13.5	12.6
Rich	14.9	17.3	3.2	2.8	18.1	20.1
Salt Lake	21.0	24.4	8.5	8.9	29.5	33.3
Tooele	8.7	9.7	3.0	2.8	11.7	12.5
Weber	23.3	24.9	5.9	6.4	29.2	31.3
Total	200.8	222.7	81.3	81.3	282.1	304.0
CENTRAL						
Juab	5.0	6.1	2.7	2.9	7.7	9.0
Millard	25.2	28.4	18.6	18.8	43.8	47.2
Sanpete	74.4	74.4	5.0	5.0	79.4	79.4
Sevier	21.3	24.5	3.4	3.7	24.7	28.2
Utah	54.9	57.0	22.5	25.1	77.4	82.1
Total	180.8	190.4	52.2	55.5	233.0	245.9
EASTERN						
Carbon	4.9	4.5	.8	.5	5.7	5.0
Daggett	1.3	1.5	.3	.2	1.6	1.7
Duchesne	22.9	25.7	4.8	4.2	27.7	29.9
Emery	8.4	10.3	2.2	1.8	10.6	12.1
Grand	2.8	2.3	.5	.5	3.3	2.8
San Juan	7.0	8.2	3.1	2.7	10.1	10.9
Summit	16.8	16.4	1.5	1.2	18.3	17.6
Uintah	16.9	19.9	3.9	3.4	20.8	23.3
Wasatch	8.6	9.5	1.4	1.2	10.0	10.7
Total	89.6	98.3	18.5	15.7	108.1	114.0
SOUTHERN						
Beaver	15.2	15.5	3.3	3.2	18.5	18.7
Garfield	6.7	7.9	1.5	1.4	8.2	9.3
Iron	11.0	12.1	8.4	8.4	19.4	20.5
Kane	3.7	4.6	.3	.4	4.0	5.0
Piute	5.9	6.7	.8	.9	6.7	7.6
Washington	6.7	7.1	5.4	5.7	12.1	12.8
Wayne	7.9	9.0	1.3	1.4	9.2	10.4
Total	57.1	62.9	21.0	21.4	78.1	84.3
STATE	528.3	574.3	173.0	173.9	701.3	748.2

Utah Cash Receipts from Farming

By Counties, 1989



COUNTY ESTIMATES: Mink, Utah, 1988-89 1/

County	Pelts Produced		Females Bred to Produce Kits	
	1988	1989	1989	1990
	- - - - - - - - - Number - - - - - - - - -			
NORTHERN				
Cache	75,100	94,500	22,000	19,500
Morgan ...	179,500	168,000	52,500	44,000
Salt Lake ..	90,900	98,000	26,500	18,000
Other	25,500	19,500	7,500	5,500
Total ...	371,000	380,000	108,500	87,000
CENTRAL				
Utah	248,000	257,000	72,500	59,500
Other	12,200	13,000	3,400	3,500
Total ...	260,200	270,000	75,900	63,000
EASTERN				
Summit ...	135,100	126,000	39,500	39,000
Other	3,700	4,000	1,100	1,000
Total ...	138,800	130,000	40,600	40,000
STATE	770,000	780,000	225,000	190,000

1/ Pelt estimates for 1990 not available until after July 24, 1991.

1987 CENSUS OF AGRICULTURE: Farms, Land in Farms, and Selected Items, by County, Utah. 1/

County	Number of Farms	Land in Farms	Average Size of Farms	Total Cropland	Harvested Cropland	Irrigated Land	Value of Land & Buildings	
							Average per Farm	Average per Acre
	Number			Acres			Dollars	
NORTHERN								
Box Elder	1,088	1,584,194	1,456	368,367	170,579	106,686	408,718	282
Cache	1,223	324,105	265	171,545	113,433	83,771	213,371	814
Davis	647	63,244	98	30,376	20,783	24,539	192,927	2,242
Morgan	261	283,105	1,085	22,662	12,508	10,369	437,395	408
Rich	166	514,768	3,101	75,404	51,443	53,998	872,331	283
Salt Lake	734	155,398	212	39,582	19,726	16,030	358,488	1,580
Tooele	299	487,427	1,630	(D)	19,563	18,972	417,270	254
Weber	891	199,496	224	46,342	28,239	31,523	187,487	816
CENTRAL								
Juab	215	273,876	1,274	69,471	30,413	22,609	324,549	281
Millard	630	480,195	762	176,482	98,835	93,419	327,938	422
Sanpete	761	447,526	588	98,500	53,623	110,744	298,264	512
Sevier	476	161,495	339	49,586	32,946	43,475	224,653	667
Utah	1,723	493,902	287	135,352	87,089	78,659	255,683	925
EASTERN								
Carbon	210	223,549	1,065	16,541	5,760	9,051	332,752	304
Daggett	36	25,120	698	9,344	5,905	8,237	276,528	396
Duchesne	753	366,471	487	106,703	48,646	97,174	214,971	418
Emery	446	215,761	484	52,448	20,409	38,935	208,348	442
Grand	81	169,325	2,090	(D)	3,012	4,397	425,481	204
San Juan	218	340,449	1,562	117,780	51,655	8,544	425,005	257
Summit	439	348,827	795	40,965	20,451	29,429	328,770	464
Uintah	693	1,318,672	1,903	(D)	39,616	75,958	325,257	166
Wasatch	298	159,854	536	20,381	11,809	16,955	310,829	517
SOUTHERN								
Beaver	226	187,041	828	37,081	29,118	34,959	281,522	386
Garfield	263	138,559	527	31,772	13,180	22,852	336,586	530
Iron	380	483,118	1,271	73,793	48,183	61,710	493,879	386
Kane	152	207,495	1,365	17,766	3,038	7,742	414,454	320
Piute	126	56,310	447	21,600	12,482	17,710	271,976	577
Washington	414	178,169	430	28,188	9,641	14,467	346,392	730
Wayne	217	101,622	468	23,184	14,801	18,293	276,111	586
STATE TOTAL	14,066	9,989,073	710	2,028,537	1,076,886	1,161,207	302,838	425

(D) - Withheld to avoid disclosing data for individual farms.
1/ Source: 1987 Census of Agriculture, U.S. Department of Commerce, Bureau of the Census.

1987 CENSUS OF AGRICULTURE: Number of Farms by Value of Sales, by County, Utah.

County	Under $2,500	$2,500 to $4,999	$5,500 to $9,999	$10,000 to $24,999	$25,000 to $49,999	$50,000 to $99,000	$100,000 Plus
NORTHERN							
Box Elder	241	116	134	205	129	104	159
Cache	326	132	156	202	122	97	188
Davis	288	92	74	76	33	33	51
Morgan	95	37	22	40	16	10	41
Rich	14	13	18	41	23	25	32
Salt Lake	354	126	97	58	29	31	39
Tooele	106	43	47	47	26	13	17
Weber	397	134	106	107	40	40	67
CENTRAL							
Juab	48	20	35	52	27	13	20
Millard	94	52	93	129	105	69	88
Sanpete	156	82	109	134	88	64	128
Sevier	102	59	73	94	61	50	37
Utah	697	271	198	229	89	87	152
EASTERN							
Carbon	100	36	32	27	2	5	8
Daggett	5	3	5	8	4	9	2
Duchesne	205	95	112	138	93	63	47
Emery	133	77	67	85	43	29	12
Grand	39	10	8	12	5	3	4
San Juan	52	15	29	38	32	22	30
Summit	126	69	67	70	39	24	44
Uintah	240	137	83	112	53	33	35
Wasatch	110	53	38	40	18	17	22
SOUTHERN							
Beaver	47	22	19	30	18	40	50
Garfield	68	33	47	48	34	20	13
Iron	78	47	45	65	42	43	60
Kane	42	20	30	33	16	6	5
Piute	20	9	20	30	22	12	13
Washington	166	66	54	65	29	22	12
Wayne	31	25	36	57	34	21	13
STATE TOTAL	4,380	1,894	1,854	2,272	1,272	1,005	1,389

1987 CENSUS OF AGRICULTURE: Number of Farms by Total Land in Farms, by County, Utah.

County	1 - 9 Acres	10 - 49 Acres	50 - 179 Acres	180 - 499 Acres	500 - 999 Acres	1,000 Plus Acres
NORTHERN						
Box Elder	152	234	270	164	86	182
Cache	168	331	371	256	62	35
Davis	205	256	126	44	9	7
Morgan	37	97	51	40	8	28
Rich	16	16	23	28	23	60
Salt Lake	353	244	85	28	7	17
Tooele	38	84	57	33	34	53
Weber	218	405	176	57	20	15
CENTRAL						
Juab	13	32	44	49	26	51
Millard	43	78	167	150	95	97
Sanpete	73	156	246	153	69	64
Sevier	49	141	162	89	12	23
Utah	475	655	360	129	51	53
EASTERN						
Carbon	31	56	48	32	10	33
Daggett	4	0	10	5	8	9
Duchesne	56	149	232	170	87	59
Emery	24	97	134	105	43	43
Grand	19	26	12	10	5	9
San Juan	12	22	27	29	29	99
Summit	69	98	116	61	31	64
Uintah	62	206	200	115	52	58
Wasatch	39	107	90	38	9	15
SOUTHERN						
Beaver	26	43	58	48	21	30
Garfield	23	56	74	61	20	29
Iron	40	70	64	67	46	93
Kane	10	20	20	30	22	50
Piute	8	15	34	36	17	16
Washington	89	92	96	57	33	47
Wayne	13	49	84	53	6	12
STATE TOTAL	2,365	3,835	3,437	2,137	941	1,351

Weather

Gaylen L. Ashcroft, Acting Utah State Climatologist
Utah State University, Logan, Utah 84322-4825

In a table below, monthly precipitation distribution, as percent of normal, is given for each of the seven climatic divisions. A similar table is presented for temperature departures. The portion of the State that lies within each climatic division can be determined by referring to the map at the right.

Precipitation Summary: Overall, 1990 was a dry year for Utah. There were only two months - June and September - in which most of the State received above-normal precipitation. There were four months - January, May, August, and December - in which precipitation was below normal for most of the State. Other months, although generally dry, had some divisions that were above normal. The divisions that are above normal varies from month to month depending upon the trajectories of the major storms.

PRECIPITATION, Percent of Normal, by Climatic Division, 1990

Division	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Western	90	110	257	150	70	120	50	32	120	78	82	61
Dixie	64	112	42	151	120	153	140	105	164	50	83	66
No. Central ...	70	70	94	86	10	230	75	55	80	90	120	73
So. Central ...	57	125	95	123	55	154	92	59	143	014	78	104
N. Mountains ..	87	87	81	87	89	130	90	57	130	85	103	62
Uinta Basin ...	45	204	110	70	65	157	112	40	170	131	76	87
Southeast	90	87	113	113	55	10	132	72	207	100	80	77

Temperature Summary: The 1990 year was unusually warm. With the exception of February, all months were above or about normal. March and April were the warmest months, averaging a whopping five degrees above normal. In such a warm environment, fruit trees bloomed so early that fruit buds were damaged in many areas of Utah by early spring freezes.

MEAN TEMPERATURE, Departures from Normal, by Climatic Division, 1990

Division	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Western	3.7	-4.3	5.0	6.0	-.5	2.4	1.1	-.5	4.8	-.2	.0	-10.7
Dixie	2.3	-.9	5.1	5.1	.8	3.2	1.1	-.1	2.1	1.7	.8	-6.2
No. Central ...	4.3	-1.8	5.2	5.7	-1.0	2.3	1.5	1.1	6.3	.1	1.6	-9.1
So. Central ...	2.5	-2.9	4.6	4.6	-.1	3.1	1.1	.0	3.8	.5	.4	-8.4
N. Mountains ..	2.4	-1.6	5.7	5.3	-.6	2.8	1.6	1.1	5.7	.2	1.4	-9.0
Uinta Basin ...	7.4	-1.4	5.1	6.1	-.2	2.6	.4	.6	4.9	.1	.5	-8.8
Southeast	1.3	1.7	5.2	4.6	.0	3.1	.0	.5	2.7	-.9	.1	-6.5

FROST FREE PERIOD, Utah, 1990 and Normal (1931-60).

Station	1990			Normal		
	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates
WESTERN						
Delta	5-9	10-3	147	5-11	9-30	142
Milford	6-2	10-8	128	5-18	9-26	131
Modena	6-2	9-29	119	5-21	9-28	130
Snowville	5-24	10-3	132	6-5	9- 6	93
Wendover	3-24	10-17	207	4-21	10-23	186
DIXIE						
St. George	3-15	11-8	238	4-1	11-10	223
Zion Nat'l Park	3-16	11-3	232	4-6	11-7	215
NORTH CENTRAL						
Corinne	5-16	10-8	145	5-14	9-28	138
Elberta	5-9	10-8	152	5-14	9-30	140
Farmington USU	5-9	10-8	152	5-4	10-12	161
Logan USU	5-9	10-7	151	5-8	10-13	159
Ogden Pioneer PH	3-24	10-17	207	5-1	10-14	167
SLC Airport	3-24	10-17	207	5-3	10-11	161
Tooele	6-1	10-8	129	4-28	10-24	179
Trenton	6-2E	10-3E	123E	5-31	9-12	104
Utah Lake Lehi	5-12	10-3	144	5-18	9-28	134
SOUTH CENTRAL						
Cedar City FAA	5-16	10-7	144	5-17	9-30	136
Fillmore	6-1	10-8	129	5-4	10-11	160
Kanab PH	3-22	10-21	213	5-6	10-13	160
Levan	6-2	10-8	128	5-16	10-3	140
Loa	6-2	9-30	120	6-22	8-29	68
Manti	6-2	10-8	128	5-24	9-28	128
Nephi	6-1	10-8	129	5-11	10-2	145
Panguitch	6-16	9-19	95	6-19	9-3	76
Richfield KSVC	6-2	10-3	123	5-28	9-18	113
NORTHERN MOUNTAINS						
Coalville	6-3	9-20	109	6-16	8-29	74
Heber	6-2	10-7	127	6-11	9-3	84
Morgan	6-2	10-3	123	6-5	9-8	96
Olmstead PH	5-9	10-8	152	5-23	9-30	130
Scofield	6-17	9-29	104	6-29	8-25	57
Silver Lk Brighton	M	9-20	M	7-5	8-27	53
Woodruff	6-17	8-28	72	6-27	8-23	57
UINTA BASIN						
Duchesne	6-2	10-8	128	5-28	9-20	115
Fort Duchesne	5-10	10-8	151	5-26	9-16	114
Jensen	6-2	10-3	123	5-24	9-14	113
SOUTHEAST						
Blanding	5-9	10-9	153	5-15	10-6	144
Ferron	5-9	10-8	152	5-15	10-6	144
Hanksville	6-2	10-9E	129	4-22	10-20	182
Moab 4 NW	M	10-9	M	4-21	10-21	183
Price Warehouse	6-2	10-9	129	5-12	10-5	147

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825.
M-Missing data. E-Estimated data.

MEAN MONTHLY TEMPERATURE (°F), Utah, 1990.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	31.1	24.2	44.5	50.6	56.3	66.5	76.1	72.9	66.7	51.7	35.9	16.9	49.5
Milford WSO	32.4	26.6	44.3	50.4	56.4	65.3	74.3	70.8	64.8	52.7	36.7	18.5	49.4
Modena	30.1	25.3	43.1	48.9	54.9	64.7	72.9	69.1	62.3	51.6	36.4	19.7	48.3
Snowville	26.1	25.1	41.0	48.0	51.5	61.1	73.3	70.2	65.4	47.4	34.5	14.4	46.5
Wendover	30.8	29.6	45.4	54.5	58.7	70.3	79.9	75.3	69.3	51.3	37.0	16.5	51.5
Division	30.1	26.2	43.7	50.5	55.6	65.6	75.3	71.7	65.7	50.9	36.1	17.2	49.0
DIXIE													
St. George	41.0	41.0	57.0	63.6	70.6	79.2	87.2	83.1	75.0	63.1	47.8	33.7	61.9
Zion Nat'l Park	42.0	38.8	54.0	59.7	67.1	78.3	84.7	81.3	74.9	65.6	49.6	34.8	60.9
Division	41.5	39.9	55.5	61.7	68.9	78.8	86.0	82.2	75.0	64.4	48.7	34.3	61.4
NORTH CENTRAL													
Corinne	33.4	31.4	44.5	51.5	55.9	64.9	76.2	73.3	68.4	50.7	37.9	18	50.5
Elberta	31.8	25.2	44.8	51.5	58.5	68.3	78.0	74.2	67.6	53.3	38.3	20.5	51.0
Farmington USU	33.7	30.6	45.7	53.2	58.6	68.4	78.3	74.6	68.3	53.0	40.2	22.3	52.3
Logan USU	29.5	25.5	41.4	50.6	53.9	63.6	75.3	72.9	67.0	49.6	37.0	16.7	48.6
Ogden Pioneer PH	32.8	30.9	46.9	54.3	59.0	68.3	78.9	76.5	70.3	54.7	41.3	22.1	53.0
SLC Airport	33.4	29.6	45.0	53.1	57.8	69.7	78.9	76.1	69.6	54.0	40.1	21.0	52.4
Tooele	33.3	28.5	43.9	52.4	55.8	67.6	77.6	74.8	67.8	53.5	37.7	20.8	51.1
Trenton	27.0	23.6	41.4	48.3E	50.8E	60.0E	71.2E	67.9E	61.9E	44.7E	34.2E	13.1E	45.3E
Utah Lake Lehi	31.2	22.3	41.0	48.6	55.6	64.7	73.5	70.5	63.9	47.2	37.3	17.9	47.8
Division	31.8	27.5	43.8	51.5	56.2	66.2	76.4	73.4	67.2	51.2	38.2	19.2	50.2
SOUTH CENTRAL													
Cedar City FAA	30.4	25.8	43.5	49.5	56.0	66.9	74.9	71.0	63.6	52.2	37.7	20.8	49.4
Fillmore	34.4	25.8	45.7	52.1	57.8	67	76.0	73.2	67.0	54.4	38.2	20.4	51.1
Kanab PH	36.5	34.1	47.6	53.9	60.1	70.3	77.4	73.1	67.1	57.6	43.4	29.9	54.3
Levan	30.5	22.9	43.2	51.0	55.9	65.7	75.0	73.2	67.0	51.7	38.5	17.3E	49.3E
Loa	26.8	25.2	38.7	45.0	50.7	61.1	66.4	61.7	57.8	47.0	32.8	18.3	44.3
Manti	30.2	23.5	41.3	47.9	54.0	63.5	71.3	68.6	62.4	49.7	36.3	19.6	47.4
Nephi	32.8	26.2	44.4	52.4	58.2	67.0	75.7	72.8	67.3	53.7	39.2	23.1	51.1
Panguitch	25.5	23.7	38.6	44.5	50.3	59.8	68.6	63.4	58.0	46.6	33.4	18.7	44.3
Richfield KSVC	30.5	24.6	43.5	48.8	54.8	64.7	71.1	67.9	62.1	50.8	36.3	19.5	47.9
Division	30.8	25.8	42.9	49.5	55.3	65.2	72.9	69.4	63.6	51.5	37.3	20.8	48.8
NORTHERN MOUNTAINS													
Coalville	25.9	24.9	39.4	45.4	51.0	58.5	66.7	63.8	58.1	46.5	34.6	15.7	44.2
Heber	23.6	20.1	39.4	47.3	53.3	61.0	70.1	67.1	62.0	48.8	36.1	16.0	45.4
Morgan	24.9	25.2	41.3	47.9	53.2	60.9	71.0	69.8	62.5	48.1	35.5	14.9	46.3
Olmstead PH	32.5	27.9	45.4	52.9	58.5	67.6	76.8	74.5	68.3	53.0	40.4	24.0	51.8
Scofield	21.6	18.7	30.2	37.3	41.9	51.7	60.8	58.0	53.1	40.7	28.2	15.3	38.1
Silver Lk Brighton	20.5	16.0	28.6	35.3	39.3	50.0E	59.0	56.5	51.5	38.6	27.1	12.7	36.3E
Woodruff	21.7	18.1	35.7	41.9	46.8	55.3	64.1	61.2	55.5	41.6	30.1	7.6	40.0
Division	24.4	21.6	37.1	44.0	49.1	57.9	66.9	64.4	58.7	45.3	33.1	15.2	43.2
UINTA BASIN													
Duchesne	25.6	20.9	40.5	50.7	55.5	64.6	70.7	68.0	62.2	47.9	33.0	14.0	46.1
Fort Duchesne	24.3	19.5	40.6	50.2	56.2	65.7	71.0E	68.2E	61.6E	49.2	33.5	12.1	46.0E
Jensen	25.4	20.4	41.7	51.5	56.8	65.0	72.4	69.1	63.6	48.4	33.3	11.4	46.6
Division	25.1	20.3	40.9	50.8	56.2	65.1	71.4	68.4	62.5	48.5	33.3	12.5	46.2
SOUTHEAST													
Blanding	27.4	30.8	44.3	51.8	59.7	71.0	74.4	71.6	66.3	53.7	39.7	24.7	51.3
Ferron	25.9	28.7	43.8	50.7	56.1	67.2	74.1	70.4	63.6	49.9	35.4	18.2	48.7
Hanksville	29.3	34.3	49.1	56.6	63.7	72.6	81.1	77.0	66.8	55.7E	37.6	21.3	53.8E
Moab 4 NW	34.4	38.3	53.7	60.6E	66.9E	75.0E	82.0	79.5E	69.9E	59.3	42.1E	26.2E	57.3E
Price Warehouse	27.9	29.2	31.4	50.8	56.8	66.0	72.5	71.1	63.7	30.9	21.5	16.0	44.8
Division	29.0	32.3	44.5	54.1	60.6	70.4	76.8	73.9	66.1	49.9	35.3	21.3	51.2
STATE AVERAGE	29.2	27.0	42.9	50.6	56.2	65.9	74.1	70.9	64.5	50.1	35.9	18.8	48.8

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825.
E-Estimated data.

NORMAL MEAN MONTHLY TEMPERATURE (°F), Utah, 1951-80.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	26.0	32.8	39.3	47.9	56.9	67.6	76.2	73.4	63.6	51.0	37.3	28.0	50.0
Milford WSO	26.4	32.1	38.2	46.3	55.9	65.8	74.3	72.1	62.6	50.3	36.8	28.2	49.1
Modena	28.7	34.0	38.6	46.2	55.2	64.8	72.4	70.3	62.3	51.0	38.1	30.3	49.3
Snowville	22.1	28.1	33.6	43.1	52.5	60.9	70.0	67.7	58.6	46.6	34.0	24.7	45.2
Wendover	28.1	34.4	41.4	50.5	60.8	70.4	79.8	76.7	66.0	52.4	38.2	28.8	52.3
Division	26.8	32.5	38.5	46.5	56.0	65.1	73.8	71.3	62.0	50.1	36.9	28.1	49.0
DIXIE													
St. George	40.3	46.2	51.9	59.8	68.9	78.3	84.9	82.8	75.0	63.3	49.5	40.9	61.8
Zion Nat'l Park	40.1	45.0	49.3	57.4	67.0	77.3	84.2	81.8	75.1	64.1	49.9	41.5	61.1
Division	39.6	45.1	50.1	57.8	66.8	76.3	83.2	81.0	73.8	62.5	48.9	40.6	60.5
NORTH CENTRAL													
Corinne	25.4	31.0	38.4	47.7	56.8	65.7	74.4	71.9	62.2	52.9	37.2	28.1	49.3
Elberta	27.6	33.0	39.9	48.2	57.5	66.8	75.1	72.6	63.5	51.5	38.7	29.2	50.3
Farmington USU	29.1	34.3	40.6	49.0	58.5	67.2	75.7	73.4	63.9	52.6	39.5	30.6	51.2
Logan USU	24.7	29.0	36.2	46.0	55.9	64.0	73.0	71.1	61.8	50.6	36.7	27.2	48.0
Ogden Pioneer PH	28.6	33.6	40.0	49.0	59.0	68.0	77.0	74.3	64.8	53.1	39.4	30.5	51.4
SLC Airport	28.6	34.1	40.7	49.2	58.8	68.3	77.5	74.9	65.0	53.0	39.7	30.3	51.7
Tooele	29.5	33.9	39.6	48.0	57.7	67.0	75.8	73.0	63.9	51.8	38.8	30.7	50.8
Trenton	21.1	26.2	33.8	44.4	54.0	61.4	69.2	67.0	59.6	48.4	35.7	24.5	45.5
Utah Lake Lehi	26.2	31.5	38.3	46.8	56.3	64.8	72.6	70.3	61.1	49.8	37.0	28.4	48.6
Division	26.8	31.7	38.5	47.4	57.0	65.7	74.3	72.0	62.7	51.3	37.8	28.7	49.5
SOUTH CENTRAL													
Cedar City FAA	29.6	34.2	39.2	47.0	56.3	66.3	74.0	71.8	63.5	52.0	39.1	31.1	50.3
Fillmore	29.1	34.5	40.5	48.4	57.7	67.4	75.9	73.6	65.0	53.0	39.3	30.4	51.2
Kanab PH	35.1	39.7	44.0	51.5	60.0	69.3	75.9	73.7	67.2	57.1	44.8	36.8	54.6
Levan	26.3	31.6	38.3	46.5	55.9	65.2	73.6	71.2	62.6	51.4	37.9	28.3	49.1
Loa	23.6	27.8	32.9	40.8	50.0	58.4	64.8	62.4	55.0	45.1	32.7	24.9	43.2
Manti	26.1	30.6	37.4	45.6	54.6	63.3	70.6	68.5	60.3	49.9	36.7	27.8	47.6
Nephi	28.9	33.4	39.4	47.7	57.2	67.0	76.0	73.5	64.4	52.9	39.5	30.7	50.9
Panguitch	24.2	28.1	33.9	41.9	50.3	42.2	65.5	63.2	56.0	46.6	34.1	25.3	43.9
Richfield KSVC	28.0	32.9	38.9	46.3	55.0	63.5	70.8	68.8	60.4	49.9	37.5	29.4	48.5
Division	27.2	31.7	37.3	45.2	54.3	63.5	71.1	68.7	60.8	50.2	37.3	28.9	48.0
NORTHERN MOUNTAINS													
Coalville	24.4	28.3	34.5	43.2	51.3	57.3	65.6	63.9	56.4	46.9	35.2	26.1	44.5
Heber	21.8	26.3	33.9	42.9	51.8	59.4	67.4	65.4	57.2	47.4	34.2	24.8	44.4
Manila	22.1	26.2	33.9	41.8	51.9	60.3	67.8	65.8	57.4	47.3	33.5	23.5	44.3
Morgan	23.5	28.1	35.3	44.3	53.5	61.6	69.2	67.0	58.2	48.0	34.6	25.9	45.8
Olmstead PH	30.1	32.6	39.4	47.9	56.7	65.9	76.1	73.1	64.1	53.4	39.9	30.7	50.8
Scofield	16.1	21.3	26.4	34.8	45.0	52.4	59.0	57.1	50.1	41.3	28.4	18.3	37.5
Silver Lk Brighton	19.0	21.0	24.0	31.6	40.9	50.1	58.2	56.2	48.7	39.1	27.0	20.8	36.4
Woodruff	15.8	18.9	26.9	38.1	47.5	55.4	62.6	60.3	51.8	41.5	28.2	18.6	38.8
Division	21.6	25.3	31.6	40.9	50.3	58.5	66.4	64.2	56.0	45.9	32.9	24.2	43.2
UINTA BASIN													
Duchesne	19.0	25.5	35.4	45.7	55.9	64.2	71.2	68.7	60.0	48.3	33.4	22.2	45.7
Fort Duchesne	14.8	22.0	34.6	45.3	55.8	64.4	71.5	68.7	59.4	47.6	32.7	19.5	44.7
Jensen	15.4	22.8	35.3	46.5	56.8	65.0	72.2	69.1	60.0	48.0	33.3	20.0	45.4
Division	16.2	23.6	35.4	46.2	56.3	64.7	71.9	69.2	60.1	48.2	33.2	20.7	45.5
SOUTHEAST													
Blanding	27.3	33.0	38.9	47.1	56.9	66.9	73.5	70.8	63.1	51.8	38.4	29.5	49.8
Ferron	22.8	29.0	36.4	46.1	56.0	65.6	72.6	69.6	61.6	50.7	36.2	26.0	47.7
Hanksville	25.6	34.1	42.9	52.4	62.9	72.8	80.0	77.0	67.4	54.4	39.0	28.2	53.1
Moab 4 NW	30.2	38.0	47.0	56.4	66.1	75.2	82.1	79.5	70.5	58.0	43.5	32.9	56.6
Price Warehouse	24.4	30.7	38.1	47.1	58.6	66.8	74.3	71.6	63.4	52.1	37.7	27.4	49.4
Division	26.6	33.8	41.3	50.5	60.5	70.0	76.9	74.2	65.7	53.9	39.5	29.1	51.8
STATE AVERAGE	25.6	31.3	38.0	46.7	56.3	65.3	73.1	70.6	62.0	50.7	37.1	27.7	48.7

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

TOTAL PRECIPITATION (INCHES), Utah, 1990.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	0.59	0.57	0.66	1.19	0.23	0.97	0.18	0.07	0.53	0.76	0.43	0.34	6.52
Milford	0.24	1.26	1.41	1.06	0.69	0.89	1.32	0.47	1.32	1.09	0.84	0.82	11.41
Modena	1.66	1.14	0.56	1.71	0.56	0.35	0.74	0.09	1.80	0.25	1.00	0.41	10.27
Snowville	0.77	0.33	2.15	1.46	2.10	1.26	0.11	0.17	0.29	0.28	0.37	3.59	12.88
Wendover	0.07	0.04	1.14	1.64	0.47	0.24	0.05	0.07	0.31	0.14	0.04	0.22	4.43
Division	0.67	0.67	1.18	1.41	0.81	0.74	0.48	0.17	0.85	0.50	0.54	1.08	9.10
DIXIE													
St. George	0.41	1.25	0.25	0.56	0.16	0.33	0.10	0.62	0.79	0.20	0.11	0.20	4.98
Zion Nat'l Park	0.58	2.13	1.03	1.69	0.92	0.47	1.19	1.21	1.03	1.01	0.78	1.06	13.10
Division	0.50	1.69	0.64	1.13	0.54	0.40	0.65	0.92	0.91	0.61	0.45	0.63	9.04
NORTH CENTRAL													
Corinne	1.02	0.62	1.35	1.64	2	0.95	0.04	0.38	0.39	0.71	1.3	1.01	11.41
Elberta	0.61	2.09	0.98	0.72	0.46	0.79	0.74	0.18	1.05	1.22	0.66	0.57	10.07
Farmington USU	1.83	0.46	2.18	2.14	1.85	1.49	0.33	0.30	0.96	0.94	2.15	1.24	15.87
Logan USU	1.06	1.38	1.11	1.69	1.61	1.78	0.20	0.45	0.84	1.35	1.76	1.73	14.96
Ogden Pioneer PH	2.28	0.52	1.16	2.10	2.10	1.16	0.83	0.98	0.77	1.01	1.92	1.24	16.07
SLC Airport	0.57	0.35	2.17	1.14	1.65	0.66	0.64	0.46	0.56	0.69	1.24	0.56	10.69
Tooele	0.83	1.87	3.04	1.70	1.44	1.79	0.14	0.82	0.15	0.87	3.26	1.40	17.31
Trenton	1.51	0.56	1.42	M	M	M	M	M	M	M	M	M	M
Utah Lake Lehi	0.37	0.28	0.83	1.18	0.65	0.74	0.35	1.23	1.34	1.26	1.70	0.15	10.08
Division	1.12	0.90	1.58	1.54	1.47	1.17	0.41	0.60	0.76	1.01	1.75	0.99	13.31
SOUTH CENTRAL													
Cedar City FAA	1.06	1.77	1.16	1.63	0.32	0.32	0.39	0.48	0.90	1.01	0.81	1.08	10.93
Fillmore	0.69	2.47	2.75	1.90	0.27	2.95	0.33	0.62	0.50	1.71	1.93	1.96	18.08
Kanab PH	0.58	1.39	0.32	0.94	0.55	0.49	0.52	0.76	1.43	0.22	0.56	0.87	8.63
Levan	0.94	1.47	1.62	0.84	0.58	1.22	0.88	0.12	0.96	1.37	0.77	M	M
Loa	2.50	0.12	0.69	0.33	0.03	0.17	1.13	0.80	1.72	0.66	0.08	0.08	8.31
Manti	0.37	1.25	2.15	1.87	0.62	1.53	1.45	0.50	1.13	1.32	1.20	1.45	14.84
Nephi	1.10	1.70	1.49	1.36	0.86	1.24	0.24	0.47	1.24	1.42	1.04	1.43	13.59
Panguitch	0.47	1.18	0.52	0.83	0.79	0.33	1.10	0.87	1.04	0.36	0.41	0.17	8.07
Richfield	0.07	0.45	0.91	0.65	0.12	0.00	0.32	0.28	0.81	1.46	0.12	0.40	5.59
Division	0.86	1.31	1.29	1.15	0.46	0.92	0.71	0.54	1.08	1.06	0.77	0.93	11.01
NORTHERN MOUNTAINS													
Coalville	1.15	0.71	2.21	1.25	1.30	1.04	0.65	0.66	1.51	0.77	1.35	0.44	13.04
Heber	2.02	2.08	1.46	0.99	1.44	1.30	0.29	0.69	1.26	1.59	1.18	1.56	15.86
Morgan	1.85	0.48	0.85	1.69	1.28	1.24	0.58	0.36	2.03	0.70	1.38	1.22	13.66
Olmstead PH	1.52	1.47	1.62	2.07	1.56	1.53	0.08	0.31	0.76	2.04	2.40	0.96	16.32
Scofield	2.18	4.29	2.90	1.67	0.70	2.34	1.27	1.27	1.81	0.99	1.70	1.79	22.91
Silver Lk Brighton	5.47	4.09	3.80	3.38	3.20	M	1.59	1.22	3.08	2.56	4.41	4.14	M
Woodruff	0.41	0.35	0.14	1.08	0.86	1.05	0.54	0.51	1.72	0.28	0.70	0.36	8.00
Division	2.09	1.92	1.85	1.73	1.48	1.44	0.66	0.98	1.66	1.50	1.84	1.06	14.97
UINTA BASIN													
Duchesne AP	0.11	1.46	0.86	0.34	0.32	0.59	0.98	0.81	1.45	0.66	0.37	0.31	8.26
Fort Duchesne	0.09	0.22	0.27	0.14	0.36	0.94	M	M	M	1.17	0.08	0.34	M
Jensen	0.37	1.10	0.44	0.58	0.21	1.08	0.11	0.19	1.18	1.23	0.63	0.88	8.00
Division	0.19	0.93	0.52	0.35	0.30	0.87	0.75	0.36	0.99	0.95	0.50	0.60	8.13
SOUTHEAST													
Blanding	1.11	0.38	0.57	0.80	0.85	1.13	1.91	0.80	1.69	1.82	1.43	0.90	13.39
Ferron	0.33	0.76	0.97	0.89	0.15	0.28	0.77	0.81	0.93	0.75	0.19	0.24	7.07
Hanksville	0.32	0.40	0.24	0.34	0.06	0.04	0.50	0.38	1.71	M	0.03	0.21	M
Moab 4 NW	0.81	0.33	0.67	M	M	M	1.13	1.07	0.82	0.70	0.88	M	M
Price Warehouse	0.24	0.54	0.75	0.46	0.54	0.60	0.47	0.56	1.41	0.48	0.12	0.34	6.51
Division	0.56	0.48	0.64	0.72	0.53	0.57	0.87	0.69	1.44	0.77	0.49	0.49	8.99
STATE AVERAGE	0.86	0.97	1.13	1.16	0.76	0.86	0.67	0.54	1.16	0.88	0.82	0.85	10.46

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

NORMAL PRECIPITATION (INCHES), Utah, 1951-80.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	.55	.61	.80	.79	.94	.41	.58	.48	.56	.57	.59	.63	7.51
Milford	.69	.74	.99	.96	.73	.42	.61	.71	.69	.73	.69	.63	8.59
Modena	.69	.73	.80	.68	.70	.40	1.14	1.21	.80	.87	.73	.49	9.24
Snowville	1.11	.88	.86	1.14	1.48	1.26	.54	.84	.70	.70	1.00	.94	11.45
Wendover	.34	.36	.42	.43	.85	.61	.25	.42	.23	.47	.38	.30	5.06
Division	.59	.57	.74	.81	.92	.67	.63	.72	.55	.65	.62	.54	8.01
DIXIE													
St. George	1.04	.90	.98	.47	.49	.21	.62	.65	.52	.56	.75	.72	7.91
Zion Nat'l Park	1.76	1.71	1.78	1.12	.80	.60	.98	1.59	.88	.90	1.20	1.26	14.58
Division	1.35	1.36	1.42	.83	.66	.36	.78	1.01	.76	.78	.99	.96	11.26
NORTH CENTRAL													
Corinne	1.78	1.52	1.36	1.73	1.66	1.42	.48	.80	1.04	1.18	1.39	1.50	15.86
Elberta	.90	.80	.93	1.06	.98	.73	.65	1.04	.68	.85	.90	.94	10.46
Farmington USU	2.11	1.89	2.03	2.94	2.22	1.36	.58	1.08	1.11	1.52	1.71	1.77	20.32
Logan USU	1.68	1.57	1.75	2.06	1.71	1.53	.45	.96	1.06	1.43	1.53	1.63	17.36
Ogden Pioneer PH	2.36	1.90	2.05	2.52	2.14	1.58	.65	.98	1.20	1.58	1.73	1.89	20.58
SLC Airport	1.35	1.33	1.72	2.21	1.47	.97	.72	.92	.89	1.14	1.22	1.37	15.31
Tooele	1.22	1.32	1.94	2.38	1.58	1.06	.75	.86	.92	1.36	1.43	1.42	16.24
Trenton	1.74	1.41	1.54	1.83	1.78	1.55	.55	.96	1.02	1.31	1.34	1.40	16.43
Utah Lake Lehi	.95	.76	1.09	1.25	.98	.71	.61	.88	.74	.92	.89	.88	10.66
Division	1.54	1.39	1.60	1.95	1.60	1.19	.65	.95	.99	1.31	1.35	1.41	15.93
SOUTH CENTRAL													
Cedar City FAA	.64	.80	1.06	.98	.82	.45	1.10	1.17	.90	.78	.91	.65	10.26
Fillmore	1.45	1.52	1.79	1.75	1.26	.68	.63	.78	.93	1.07	1.31	1.34	14.51
Kanab PH	1.75	1.25	1.41	.82	.68	.38	.87	1.37	.79	.90	1.11	1.24	12.57
Levan	1.31	1.32	1.52	1.66	1.33	.76	.68	.91	1.05	1.09	1.24	1.37	14.24
Loa	.39	.27	.34	.42	.69	.39	1.10	1.21	.87	.63	.42	.34	7.07
Manti	1.13	1.20	1.28	1.40	1.16	.69	.67	.89	1.08	.99	1.05	.99	12.53
Nephi	1.30	1.27	1.46	1.48	1.22	.76	.63	.95	.88	1.07	1.22	1.26	13.50
Panguitch	.54	.65	.66	.60	.80	.58	1.46	1.56	1.10	.68	.74	.52	9.89
Richfield	.63	.62	.63	.71	.73	.41	.81	.69	.80	.64	.59	.56	7.82
Division	1.08	1.05	1.16	1.04	.09	.54	.96	1.30	1.00	.92	.98	.97	11.09
NORTHERN MOUNTAINS													
Coalville	1.28	1.10	1.35	1.83	1.58	1.12	.83	.95	1.03	1.27	1.35	1.35	15.04
Heber	2.09	1.52	1.27	1.32	1.18	.93	.65	.92	.92	1.29	1.50	1.73	15.32
Manila	.37	.51	.69	1.31	1.25	.87	.92	.92	.93	1.08	.48	.38	9.71
Morgan	1.91	1.73	1.76	2.19	1.76	1.30	.52	.97	1.04	1.50	1.64	1.75	18.07
Olmstead PH	2.44	1.89	1.95	2.08	2.22	1.36	.48	1.06	1.10	1.10	1.74	2.20	19.62
Scofield	2.77	2.52	2.43	1.78	1.45	.93	.95	1.46	1.27	1.31	1.53	1.89	20.29
Silver Lk Brighton	5.56	4.96	5.26	4.44	2.83	1.76	1.28	1.90	1.96	2.94	4.30	5.02	42.21
Woodruff	.51	.48	.59	.88	.89	1.12	.72	.74	.79	.82	.62	.58	8.74
Division	2.18	1.93	1.89	1.88	1.55	1.17	.88	1.23	1.15	1.45	1.62	1.99	18.92
UINTA BASIN													
Duchesne AP	.41	.49	.55	.70	.83	.92	.64	1.07	.92	.94	.48	.66	8.61
Fort Duchesne	.44	.34	.50	.60	.62	.69	.52	.73	.61	.78	.47	.52	6.82
Jensen	.51	.52	.61	.64	.75	.69	.43	.67	.71	.89	.53	.60	7.55
Division	.52	.45	.58	.68	.78	.72	.58	.81	.71	.87	.54	.61	7.85
SOUTHEAST													
Blanding	1.34	.95	.80	.67	.59	.37	1.04	1.41	.89	1.46	.89	1.29	11.70
Ferron	.66	.60	.55	.47	.78	.51	.85	1.17	.78	.70	.58	.51	8.16
Hanksville	.30	.22	.35	.42	.49	.23	.44	.83	.60	.63	.43	.30	5.24
Moab 4 NW	.57	.52	.67	.91	.68	.37	.52	.83	.66	.94	.66	.67	8.00
Price Warehouse	.73	.76	.72	.50	.72	.70	.85	1.17	.97	1.09	.60	.87	9.68
Division	.73	.61	.64	.61	.67	.40	.77	1.05	.78	1.08	.73	.74	8.81
STATE AVERAGE	1.01	.92	1.01	1.02	.98	.68	.77	1.02	.83	.98	.90	.94	11.06

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

ACCUMULATED GROWING DEGREE DAYS Base 50, by Months, Utah, 1990.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	25	10	150	261	329	518	687	611	532	300	81	5	3509
Milford	42	12	177	277	366	517	643	589	509	343	99	8	3582
Modena	41	17	140	247	327	501	630	565	461	312	85	11	3337
Snowville	0	8	107	248	265	440	615	566	505	251	50	0	3055
Wendover	7	5	92	244	306	626	827	730	612	194	15	0	3658
Division	23	10	133	255	319	520	680	612	524	280	66	5	3428
DIXIE													
St. George	66	119	330	474	603	753	890	829	703	475	213	37	5492
Zion Nat'l Park	84	100	259	392	527	734	835	791	709	506	238	51	5226
Division	75	110	295	433	565	744	863	810	706	491	226	44	5359
NORTH CENTRAL													
Corinne	1	12	109	246	301	483	686	631	566	242	59	0	3336
Elberta	13	1	136	264	378	556	739	649	555	304	80	6	3681
Farmington USU	9	12	130	255	360	552	754	688	567	276	71	0	3674
Logan USU	0	0	65	192	232	466	715	654	545	176	43	0	3088
Ogden Pioneer	1	15	125	263	348	569	790	749	627	269	75	0	3831
SLC Airport	10	10	107	246	328	589	781	728	606	268	63	0	3736
Tooele	16	10	103	242	295	558	755	701	565	286	57	0	3588
Trenton	2	0	102	209E	229E	415E	598E	546E	473E	187E	43 E	0	2804E
Utah Lake Lehi	0	0	71	214	323	498	643	589	485	210	50	1	3084
Division	6	7	105	237	310	521	718	659	554	246	60	1	3425
SOUTH CENTRAL													
Cedar City FAA	35	11	130	215	319	547	694	608	481	279	90	10	3419
Fillmore	35	1	137	240	348	569	722	670	559	291	74	3	3649
Kanab	44	62	194	301	401	589	720	634	536	374	148	20	4023
Levan	10	0	120	274	329	509	657	620	534	298	105	6E	3462E
Loa	18	14	82	159	269	462	521	438	377	235	48	3	2626
Manti	9	0	77	172	266	481	633	561	451	231	55	4	2940
Nephi	22	3	150	285	406	530	678	616	548	329	107	18	3692
Panguitch	29	10	101	192	300	476	576	489	409	282	92	8	2964
Richfield	31	11	138	225	333	519	610	550	469	302	79	13	3280
Division	26	12	125	229	330	520	646	576	485	291	89	9	3339
NORTHERN MOUNTAINS													
Coalville	1	7	91	208	290	436	552	516	430	230	63	2	2826
Heber	0	0	88	225	315	455	592	540	478	265	68	5	3031
Morgan	0	3	98	230	303	449	583	581	474	257	62	1	3041
Olmstead PH	15	6	127	264	361	547	713	671	562	278	85	7	3636
Scofield	0	0	1	30	77	272	388	340	263	88	9	1	1469
Silver Lk Brighton	0	0	0	17	36	210E	352	294	222	47	6	0	1175E
Woodruff	0	0	42	152	205	372	503	476	381	159	29	0	2319
Division	2	2	64	161	227	392	526	488	401	189	46	2	2500
UINTA BASIN													
Duchesne	7	2	91	249	324	505	607	554	443	207	23	0	3012
Fort Duchesne	0	0	95	262	338	502	608E	559E	474E	241	28	0	3107E
Jensen	0	1	120	304	370	508	612	565	494	251	30	0	3255
Division	2	1	102	272	344	505	609	559	470	233	27	0	3125
SOUTHEAST													
Blanding	1	22	120	256	382	613	671	612	525	244	64	0	3510
Ferron	0	18	102	227	318	549	683	597	472	247	48	0	3261
Hanksville	13	78	256	386	496	590	713	643	533	342E	110	1	4161E
Moab 4 NW	19	111	286	347E	456E	542E	754	691E	586E	435	150E	2E	4379E
Price	0	24	95	243	324	519	659	596	472	161	27	1	3121
Division	7	51	172	292	395	563	696	628	518	286	80	1	3686
STATE AVERAGE	15	21	131	249	333	517	657	595	499	270	71	4	3363

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

NORMAL GROWING DEGREE DAYS Base 50, by Months, Utah.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	0	0	63	201	357	529	664	628	456	262	34	0	3194
Milford	0	0	54	194	370	514	621	602	450	256	36	0	3097
Modena	0	2	83	215	380	515	583	573	460	289	65	0	3165
Snowville	0	0	7	135	307	448	556	546	401	210	12	0	2622
Wendover	0	0	39	179	368	617	803	755	456	189	8	0	3414
Division	0	1	60	189	358	505	628	601	439	246	36	0	3063
DIXIE													
St. George	65	150	277	398	585	699	815	791	629	464	227	86	5186
Zion Nat'l Park	29	100	210	338	547	707	825	807	674	433	187	56	4913
Division	45	122	238	360	546	675	793	774	628	435	202	69	4887
NORTH CENTRAL													
Corinne	0	0	31	180	355	492	642	605	427	226	18	0	2976
Elberta	0	0	59	202	374	519	660	630	437	245	31	0	3157
Farmington USU	0	0	50	189	361	522	680	648	438	246	30	0	3164
Logan USU	0	0	3	112	285	435	655	615	369	174	4	0	2652
Ogden Pioneer	0	0	31	167	342	546	727	687	437	230	23	0	3190
SLC Airport	0	0	39	178	357	553	717	687	449	238	26	0	3244
Tooele	0	0	20	143	305	516	736	678	400	186	12	0	2996
Trenton	0	0	4	124	306	431	550	541	416	224	15	0	2611
Division	0	0	29	161	336	498	660	627	423	222	19	0	2975
SOUTH CENTRAL													
Cedar City FAA	0	0	50	179	348	506	657	628	433	257	47	0	3105
Fillmore	0	0	67	198	365	529	682	657	459	267	42	0	3266
Kanab	0	48	147	269	428	557	671	656	507	346	137	14	3780
Levan	0	0	43	180	350	494	625	597	440	256	35	0	3020
Loa	0	0	9	115	273	401	487	448	336	187	15	0	2271
Manti	0	0	29	158	319	449	588	548	391	218	20	0	2720
Nephi	0	0	43	181	357	520	663	636	460	275	47	0	3182
Panguitch	0	0	25	156	304	402	520	492	385	239	34	0	2557
Richfield	0	1	77	204	362	492	659	554	440	277	56	0	3032
Division	0	3	46	167	332	475	592	562	416	245	43	1	2882
NORTHERN MOUNTAINS													
Heber	0	0	7	124	297	421	542	523	388	217	15	0	2534
Manila	0	0	0	91	266	404	545	499	343	163	4	0	2315
Morgan	0	0	14	145	325	463	557	543	408	225	15	0	2695
Olmstead PH	0	0	37	160	319	493	684	656	437	249	26	0	3061
Silver Lk Brighton	0	0	0	0	67	211	327	301	179	32	0	0	1117
Woodruff	0	0	0	47	214	336	462	441	310	132	0	0	1942
Division	0	0	6	89	252	387	515	488	344	169	9	0	2259
UINTA BASIN													
Duchesne	0	0	23	175	356	472	592	552	392	200	9	0	2771
Fort Duchesne	0	0	27	187	368	499	570	551	416	214	10	0	2842
Jensen	0	0	38	208	391	513	572	556	439	237	16	0	2970
Division	0	0	32	193	371	494	587	559	416	215	11	0	2878
SOUTHEAST													
Blanding	0	0	40	180	357	514	653	608	415	232	27	0	3026
Ferron	0	0	19	151	318	474	652	581	391	223	21	0	2830
Hanksville	0	10	140	291	476	605	720	687	515	315	63	0	3822
Moab 4 NW	0	26	177	327	522	657	767	736	564	363	107	0	4246
Price	0	0	42	201	395	518	654	616	433	250	30	0	3139
Division	0	10	99	242	424	572	697	659	482	284	55	0	3524
STATE AVERAGE	0	5	59	186	358	502	625	595	433	245	39	1	3048

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

ACCUMULATED GROWING DEGREE DAYS Base 40, by Months, Utah, 1990.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	99	47	283	417	517	697	858	798	712	448	188	30	5094
Milford	131	72	313	431	538	656	812	752	677	495	211	48	5136
Modena	100	62	279	401	499	652	803	748	637	471	202	50	4904
Snowville	13	40	255	399	428	589	768	714	680	402	144	16	4448
Wendover	42	54	241	489	566	841	1009	929	837	377	111	3	5499
Division	77	55	274	427	510	687	850	788	709	439	171	29	5016
DIXIE													
St. George	212	250	517	691	788	920	1057	1003	874	643	368	130	7453
Zion Nat'l Park	222	223	469	618	722	902	1010	961	886	702	416	143	7274
Division	217	237	493	655	755	911	1034	982	880	673	392	137	7364
NORTH CENTRAL													
Corinne	36	55	245	417	495	677	855	811	757	407	161	19	4935
Elberta	80	29	271	428	563	727	914	823	740	477	188	34	5274
Farmington USU	60	65	279	454	564	751	924	870	767	445	187	12	5378
Logan USU	33	22	178	377	441	683	897	856	767	354	116	10	4734
Ogden Pioneer	45	65	273	487	573	771	962	931	843	473	188	19	5630
SLC Airport	64	58	249	454	536	796	954	911	819	459	175	13	5488
Tooele	68	56	240	441	496	771	937	889	767	470	158	15	5308
Trenton	31	27	233	359E	402E	584E	759E	692E	611E	336E	117E	15E	4168E
Utah Lake Lehi	31	4	186	367	500	668	820	757	683	370	164	10	4560
Division	50	42	239	420	508	714	891	838	750	421	162	16	5053
SOUTH CENTRAL													
Cedar City FAA	89	56	258	371	514	724	873	808	682	455	199	52	5081
Fillmore	114	32	273	423	560	755	889	861	768	492	176	23	5366
Kanab	144	141	345	469	597	757	893	820	760	551	290	89	5856
Levan	58	25	243	421	498	676	822	793	707	444	219	25E	4931E
Loa	59	67	206	309	425	610	724	617	569	387	151	41	4165
Manti	57	24	195	329	455	673	822	773	665	392	153	35	4573
Nephi	101	39	288	445	563	694	847	799	723	480	220	60	5259
Panguitch	86	57	228	341	456	556	714	627	551	431	209	52	4308
Richfield	111	55	266	381	509	662	767	712	644	453	188	55	4803
Division	91	55	256	388	509	679	817	757	674	454	201	48	4927
NORTHERN MOUNTAINS													
Coalville	31	51	213	350	444	542	668	619	555	386	159	17	4035
Heber	23	5	197	374	487	587	740	678	616	419	174	26	4326
Morgan	19	44	226	378	474	571	740	728	614	409	159	18	4380
Olmstead PH	62	44	264	449	562	735	883	844	761	450	197	43	5294
Scofield	12	18	47	140	214	440	627	541	456	217	63	17	2792
Silver Lk Brighton	7	8	37	109	149	360E	583	505	419	163	47	10	2397E
Woodruff	15	10	141	291	367	496	642	592	517	305	95	1	3472
Division	24	26	161	299	385	533	698	644	563	336	128	19	3814
UINTA BASIN													
Duchesne	44	23	200	412	501	666	800	738	655	367	105	10	4521
Fort Duchesne	16	14	206	419	516	660	769E	708E	649E	395	121	3	4476E
Jensen	28	19	248	455	541	657	779	700	651	402	123	10	4613
Division	29	19	218	429	519	661	783	715	652	388	116	8	4537
SOUTHEAST													
Blanding	25	85	250	423	592	790	846	802	758	445	175	26	5217
Ferron	21	86	233	397	513	736	864	802	693	408	164	14	4931
Hanksville	87	190	401	538	619	735	886	813	721	495E	237	44	5766E
Moab 4 NW	112	237	469	626E	680E	790E	926	856E	783E	563	292E	81E	6415E
Price	28	81	193	410	520	698	835	781	674	261	90	20	4591
Division	55	136	309	479	585	750	871	811	726	434	192	37	5384
STATE AVERAGE	65	71	262	419	517	685	830	770	688	426	176	33	4940

Source: Utah State Climatologist, Utah State University, Logan, Utah 84322-4825

NORMAL GROWING DEGREE DAYS Base 40, by Months, Utah.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta	1	76	217	350	549	709	834	798	623	417	167	19	4760
Milford	4	76	208	343	530	661	791	771	600	411	173	33	4601
Modena	52	115	238	364	529	628	751	735	590	443	213	84	4742
Snowville	0	14	124	285	462	590	698	673	540	365	117	2	3870
Wendover	0	50	189	347	660	837	973	931	724	371	107	1	5190
Division	18	79	207	340	534	667	792	765	601	403	167	36	4609
DIXIE													
St. George	220	290	432	598	770	864	985	961	794	632	376	241	7163
Zion Nat'l Park	183	240	364	540	764	871	995	977	842	680	341	210	7007
Division	200	262	392	549	742	840	963	944	796	631	353	223	6895
NORTH CENTRAL													
Corinne	0	29	173	330	540	700	812	778	616	387	131	4	4500
Elberta	0	63	212	352	559	703	830	804	636	400	163	15	4737
Farmington USU	1	70	203	339	584	732	850	821	653	404	161	16	4834
Logan USU	0	4	106	261	502	710	841	820	624	335	86	0	4289
Ogden Pioneer	0	50	177	322	601	773	897	863	687	400	147	11	4928
SLC Airport	0	54	189	330	598	758	887	859	684	405	151	10	4925
Tooele	0	46	162	296	565	780	914	883	611	361	126	9	4823
Trenton	0	2	106	273	465	616	710	680	551	378	118	0	3899
Division	1	40	166	313	545	712	832	804	631	384	133	9	4570
SOUTH CENTRAL													
Cedar City FAA	41	94	204	328	531	698	827	806	641	412	192	69	4843
Fillmore	21	93	222	347	566	722	852	828	668	425	182	42	4968
Kanab	131	187	301	419	615	723	841	826	697	518	287	164	5709
Levan	0	60	194	329	522	673	795	769	610	410	170	19	4551
Loa	1	45	141	264	428	551	662	635	486	342	138	22	3715
Manti	0	39	175	307	485	654	766	742	576	373	141	10	4268
Nephi	13	72	195	330	552	710	833	806	647	431	190	47	4826
Panguitch	14	58	170	305	458	542	641	619	529	394	172	39	3941
Richfield	38	100	232	354	516	619	732	708	566	431	203	68	4567
Division	27	74	188	316	502	641	760	736	586	403	177	51	4461
NORTHERN MOUNTAINS													
Heber	0	12	126	274	451	567	673	649	529	372	125	4	3782
Manila	0	7	99	241	428	633	755	728	523	318	96	1	3829
Morgan	0	20	143	295	479	593	692	664	540	380	124	4	3934
Olmstead PH	4	51	186	309	536	723	854	832	663	412	150	9	4729
Silver Lk Brighton	0	0		69	221	361	518	477	328	169	11	0	2154
Woodruff	0	0	29	190	369	487	615	583	459	286	46	0	3064
Division		12	90	230	412	556	675	647	502	322	91	3	3540
UINTA BASIN													
Duchesne	0	11	155	325	522	659	764	735	557	355	100	0	4183
Fort Duchesne	0	5	157	337	525	636	736	701	551	369	98	0	4115
Jensen	0	10	177	358	545	640	739	694	557	392	117	0	4229
Division	0	9	167	343	534	653	755	720	562	370	103	0	4216
SOUTHEAST													
Blanding	0	64	191	330	545	706	823	795	637	389	159	21	4660
Ferron	0	26	156	301	515	718	830	790	611	377	140	6	4470
Hanksville	11	121	294	442	667	770	890	857	679	473	209	45	5458
Moab 4 NW	43	153	332	512	736	821	937	906	736	535	257	83	6051
Price	0	47	191	350	579	708	824	792	636	405	161	16	4709
Division	15	94	248	399	622	752	871	839	671	452	192	38	5193
STATE AVERAGE	17	68	196	337	538	673	793	765	605	405	162	34	4593

Source: Utah State Climatologist, Utah State University, Utah 84322-4825

Enterprise Budgets

Prepared by the Economics Department, Utah State University

The following crop and livestock enterprise budgets were prepared by the Economics Department at Utah State University. Although not guaranteed, these budgets are provided to help farmers and ranchers identify potential alternatives to maximize the profitability of their operation. Actual costs and income will vary from farm to farm; therefore, a column has been provided to adapt the budgets to your farm or ranch.

Possible management strategies have been provided by both U.S.U. and the Utah Department of Agriculture.

An Enterprise Budget workbook will be available later this year through the Utah Department of Agriculture. It will include the budget information on pages 127-141, plus additional profitability tips. Contact El Shaffer, phone 538-7104, in Salt Lake City for ordering individual or bulk supplies of the workbook. A nominal printing and postage fee will be charged.

Any questions or suggestions to these budgets should be referred to the appropriate contact person in the Economics Department at Utah State University, (phone (801) 750-2310 in Logan).

Machinery compliments for the crop budgets are included, to indicate the size of equipment used in the budget calculations. Your cost may be different if you are not using the same size machinery.

Index of Enterprise Budgets, by Subject, and Utah Agricultural Statistics Publication Year.

Enterprise Budget	Publication Year	Enterprise Budget	Publication Year
Alfalfa Hay (small, square bales, flood irrig.)	1991	Corn, Silage (flood irrigation)	1991
Alfalfa Hay (large, square bales, center pivot)	1991	Dairy	1991
Alfalfa Hay (wheel line)	1989	Hycrest Wheatgrass Seed	1990
Apples	1990	Mink (black mink)	1991
Barley (wheel line irrigation)	1991	Onions (furrow irrigation)	1990
Beef Cattle:		Potatoes (center pivot)	1991
Cow/Calf (Rich County)	1991	Sheep	1990
Cow/Calf/Yearling (Southern Utah)	1990	Tart Cherries (trickle irrig.)	1989
Stocker-Feeder	1990	Winter Wheat (flood irrig.)	1991
Finish Cattle	1990	Winter Wheat (dryland; not in program)	1989
Corn, Grain (flood irrigation)	1990	Winter Wheat (dryland; in gov't. program)	1989

DAIRY BUDGET
Estimated Costs and Returns per Cow (1990) for Three Herd Sizes

	Small (60 Cows) 17,200 Pounds	Medium (100 Cows) 18,000 Pounds	Large (190 Cows) 17,800 Pounds	Your Farm
RECEIPTS:		Dollars		
Milk Sales 1/	2,236	2,466	2,474	
Cull Cow 2/	210	210	210	
Bull Calf 3/	44	44	44	
Heifer Calf 4/	56	60	64	
Total Receipts	2,546	2,780	2,792	
COSTS:				
Variable Costs:				
Feed 5/	1,012	1,090	1,058	
Vet & Medicine	24	27	26	
Supplies 5/	130	97	108	
Breeding 5/	18	17	23	
Equipment Maint.	81	77	55	
Building Maint.	35	27	22	
Fuel & Oil	102	111	74	
Utilities, Hauling & Misc. 5/	192	170	174	
Hired Labor 5/	175	155	178	
Total Variable Costs	1,769	1,771	1,718	
Fixed Costs:				
Cow Investment 6/	126	138	143	
Cow Replacement 7/	350	383	397	
Facilities 8/	181	143	115	
Equipment 8/	284	225	135	
Total Fixed Costs	941	889	790	
TOTAL COSTS	2,710	2,660	2,508	
RETURNS PER COW TO MANAGEMENT & UNPAID FAMILY LABOR	(164)	120	284	

1/ $13.90 per cwt. for large dairies, $13.70 per cwt. for medium dairies, and $13.00 per cwt. for small dairies. 2/ Assuming 33% turnover, with 3% death loss, and 30% sold as 1,400 lb. cull cows at $0.50 per lb. 3/ At 0.40 head per cow per year. 4/ At 0.40 head per year. Value increases as herd productivity increases. 5/ Average production costs taken from actual farm records in Cache County. 6/ at 12% interest. 7/ at 1/3 of value. 8/ Facilities and equipment fixed costs were calculated using 1990 replacement costs.

Budget prepared by B. Kris Schulthies, Clark Israelsen, and Deevon Bailey.

COW/CALF OPERATION BUDGET
Estimated Costs and Returns Based on a 350 Cow/Calf Operation, Located in Rich County, Utah, (1990) 82 Percent Weaning Percentage.

Item	Number	Weight	Price	Unit	Total	Amount per Cow	Your Ranch
RECEIPTS:		Pounds	Dollars			Dollars	
Calves:							
Steers	149	450	105.00	Cwt.	70,403	201.15	
Heifers	97	400	100.00	Cwt.	38,800	110.86	
Culled Animals:							
Bulls	3	1,400	57.50	Cwt.	2,013	5.75	
Cows	42	1,000	50.00	Cwt.	21,000	60.00	
Total Receipts	--	--	--	--	132,215	377.76	
CASH COSTS:							
Federal Grazing Fees	1,560	--	1.84	AUM	2,870	8.20	
Private Grazing Fees	520	--	15.00	AUM	7,800	22.29	
Hay	847	--	70.00	Tons	59,290	169.40	
Aftermath	910	--	14.00	AUM	12,740	36.40	
Salt/Minerals	42	--	2.25	Cwt.	95	0.27	
Supplement	52	--	23.00	Cwt.	1,196	3.42	
Replacement Bulls	3	--	1,400.00	Head	3,500	10.00	
Vet/Medicine	364	--	6.76	Head	2,461	7.03	
Trucking	--	--	--	--	924	2.64	
Fuel/Oil (Hay Feeding)	1,560	--	1.35	Gal.	2,104	6.01	
Repairs (Livestock Equipment)	--	--	--	--	1,000	2.86	
Repairs (Fences & Buildings)	--	--	--	--	500	1.43	
Horse Use (Shoeing, Vet, Etc.)	4	--	200.00	Horse	800	2.29	
Hired Labor	6	--	1,200.00	Month	7,200	20.57	
Pickup	15,000	--	0.28	Mile	4,200	12.00	
Insurance	--	--	--	Head	350	1.00	
Property Tax	2,000	--	1.25	Acre	2,500	7.14	
Interest on Operating Loan (12% 6 months)	54,000	--	0.12	Percent	3,240	9.26	
Total Cash Costs	--	--	--	--	115,926	331.22	
NONCASH COSTS: (Depreciation)							
Fences					1,262	3.60	
Livestock Handling Equipment					7,579	21.65	
Horse					240	0.69	
Buildings					932	2.66	
Total Noncash Costs					10,012	28.61	
TOTAL COSTS					125,938	359.82	
RETURN TO LAND & MANAGEMENT					6,277	17.93	

Assumptions: 350 brood cows, 82 percent weaning percentage, bull replacement rate 33 percent, and 42 cows replaced every year. Feed costs for breeding bulls, replacement heifers, and stock horses have been factored into the per cow feed cost.

Budget prepared by B. Kris Schulthies and Deevon Bailey, in cooperation with beef producers in Rich County.

See page 129 for Noncash Depreciation and Assumption Compliment.

COW/CALF OPERATION BUDGET
Non-Cash (Depreciation) and Assumptions Compliment, Rich County, 1990.

DEPRECIATION

Item	Value	Salvage	Life	Percent	Depreciation
Fences:	--- Dollars ---				-- Dollars --
Ranch (8 Miles)	18,720	0	50	1.00	374.00
Cross Fences (4 Miles)	9,360	0	50	1.00	187.00
Working Corrals	20,000	0	50	1.00	400.00
Feeding Corrals	5,000	0	20	1.00	250.00
Watering System	1,000	0	20	1.00	50.00
Total					1,262.00
Livestock Handling Equipment:					
Pickup	17,000	1,000	5	0.75	2,400.00
ATV	2,000	100	7	0.50	136.00
Cow Squeeze Chute	2,000	0	50	1.00	40.00
Calf Squeeze Chute	1,200	0	50	1.00	24.00
7X16 Gooseneck Trailer	6,000	200	10	1.00	580.00
JD Tractor (105 hp)	61,000	5,000	20	0.60	1,680.00
JD Tractor (105 hp)	61,000	5,000	20	0.60	1,680.00
JD Loader/Hay Loader	9,000	200	20	0.60	264.00
Hesston Feeder Wagon	16,000	500	20	1.00	775.00
Total					7,579.00
Horses:					
4 Horses	4,000	1,600	10	1.00	240.00
Total					240.00
Buildings:					
40X80 Shop	20,000	1,500	40	0.75	347.00
40X80 Barn	20,000	1,500	40	1.00	463.00
Grainery	5,000	100	40	1.00	123.00
Total					932.00

ASSUMPTIONS

Item	Number	Unit	Price	Total
Fencing Costs/1/2 Mile):			------ Dollars ------	
Wire	10	Spool	45	450
Posts	160	Each	3	464
Labor	30	Hours	5	150
Dancers	160	Each	1	96
Staples	--	--	--	10
Total				1,170
Hay Needs:				
Cattle (2 Tons Ea.)	832			
Horses (3.75 Tons Ea.)	15			
Total	847			
Animals:				
Cows	350			
Bulls	14			
Replacement Heifers	52			
Total	416			

ALFALFA BUDGET
Estimated Costs and Returns for Alfalfa Production (1990)
East Millard County, Center Pivot Irrigation, Large Square Bales
Per Acre Basis

Item	Unit	Quantity	Price	Total	Your Farm
RECEIPTS:				Dollars	
Yield per Acre	Tons	6	75.00	450.00	
Residue	AUM	0.25	10.00	2.50	
Total Receipts	--	--	--	452.50	
PURCHASES:					
Phosphate	Unit	129	0.23	29.67	
Metribuzin	Gal.	0.25	104.51	26.13	
Carbofuran	Gal.	0.25	56.00	14.00	
Soil Test: 1/	--	--	--	0.13	
Total Purchases	--	--	--	69.93	

OPERATIONS:	Machine Costs					
	Times	Fixed	Variable	Labor		
			Dollars			
Fertilizer Application (Custom)	1	--	--	--	3.00	
Herbicide Application (Custom Aerial)	1	--	--	--	4.00	
Insecticide Application	1	0.75	0.60	0.32	1.67	
Swathing	3	18.63	3.67	1.00	32.64	
Raking	3	4.89	1.07	0.50	9.60	
Bailing (Large Bales)	3	25.11	4.40	0.64	40.23	
Hauling	3	31.74	6.41	2.86	59.55	
Irrigation 2/	5	63.65	11.54	0.87	125.70	
Total Operation Costs	--	--	--	--	276.39	
ESTABLISHMENT COSTS = $219.41/ACRE AMORTIZED FOR 7 YEARS @ 12%					48.08	
INTEREST ON OPERATION LOAN @ 12% FOR SIX MONTHS					12.09	
TOTAL PURCHASES, OPERATING COSTS & INTEREST					406.49	
RETURN TO LAND & MANAGEMENT					46.01	

1/ Purchase made every third year, 1/3 of cost included each year. 2/ Irrigation Costs are calculated assuming a pivot watering 130 acres. An electric motor with a life of 10 years is used, and costs are estimated for a 300 foot well that waters a total of 400 acres. The fixed costs for the well and sprinkling equipment were calculated assuming a 30 year amortization schedule. The fields were assumed diked into 10 acre parcels.

Budget prepared by B. Kris Schulthies and DeeVon Bailey, with input from a number of producers.

See page 132 for Machinery Compliment of Alfalfa Budget for East Millard County.

ALFALFA BUDGET
Estimated Costs and Returns for Alfalfa Production (1990)
West Millard County, Flood Irrigation, Small Square Bales
Per Acre Basis

Item	Unit	Quantity	Price	Total	Your Farm
RECEIPTS:				Dollars	
Yield per Acre	Tons	6	75.00	450.00	
Residue	AUM	0.25	10.00	2.50	
Total Receipts	--	--	--	452.50	
PURCHASES:					
Phosphate	Unit	129	0.23	29.67	
Metribuzin	Gal.	0.25	104.51	26.13	
Carbofuran	Gal.	0.25	56.00	14.00	
Water	Acr ft	2.25	46.00	103.50	
Soil Test 1/	--	--	--	0.13	
Total Purchases	--	--	--	173.43	

	Machine Costs				
OPERATIONS:	Times	Fixed	Variable	Labor	
		Dollars			
Fertilizer Application (Custom)	1	--	--	--	3.00
Herbicide Application (Custom Aerial)	1	--	--	--	4.00
Insecticide Application	1	0.75	0.60	0.32	1.67
Swathing	3	10.38	2.44	0.99	20.67
Bailing (Small Bales)	3	10.62	2.90	1.27	23.13
Hauling (Custom - 140 Bales @ $0.35)	--	--	--	--	49.00
Irrigation 2/	5	36.70	2.00	7.40	83.70
Total Operation Costs	--	--	--	--	185.17

ESTABLISHMENT COSTS = $215.88/ACRE AMORTIZED FOR 7 YEARS @ 12%	47.30	
INTEREST ON OPERATION LOAN @ 12% FOR SIX MONTHS	18.01	
TOTAL PURCHASES, OPERATING COSTS & INTEREST	423.91	
RETURN TO LAND & MANAGEMENT	28.59	

1/ Purchase made every third year, 1/3 of cost included each year. 2/ Irrigation Costs are calculated assuming cement ditches and dikes. The fixed costs of the cement ditches were estimated using a 15 year amortization schedule. The fields were assumed diked into 10 acre parcels.

Budget prepared by B. Kris Schulthies and DeeVon Bailey, with input from a number of producers.

See page 132 for Machinery Compliment of Alfalfa Budget for West Millard County.

ALFALFA BUDGET
Machinery Compliment,
for East Millard County, Center Pivot Irrigated, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Spraying	40 ft. 300 Gallon Sprayer	1	2,650	40	6.5
Swathing	16 ft. Self-Propelled-Type Swather	--	48,000	200	4.5
Raking	32 ft. Double Side Delivery Rake	1	13,000	100	4.5
Bailing	Large Square Pto Drive Baler	2	70,000	130	3.5
Hauling	Front End Loader	1	7,800	200	--
Hauling	2 Ton Truck	--	40,000	300	--

1/ Tractor definitions:
#1 is a 85 hp 2 wheel drive tractor with a replacement cost of $34,000, and an annual usage of 700 hours.
#2 is a 175 hp 2 wheel drive tractor with a replacement cost of $63,500, and an annual usage of 700 hours.

ALFALFA BUDGET
Machinery Compliment
for West Millard County, Flood Irrigated, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Spraying	40 ft. 300 Gallon Sprayer	1	2,650	40	6.5
Swathing	16 ft. Hydro-Swing Pull-Type Swather	1	19,500	200	4.5
Bailing	2 String Pto-Drive Baler	1	15,500	250	3.5
Hauling	----------Custom----------				

1/ Tractor definitions:
#1 is a 85 hp 2 wheel drive tractor with a replacement cost of $34,000, and an annual usage of 700 hours.

WINTER WHEAT BUDGET
Estimated Costs and Returns for Winter Wheat Production (1990)
Box Elder County, Flood Irrigation System,
Per Acre Basis

Item	Unit	Quantity	Price		Total	Your Farm
RECEIPTS:					Dollars	
Yield per Acre	Bu.	100	2.56		256.00	
Total Receipts	--	--	--		256.00	
PURCHASES:						
Seed	Lbs.	100	0.12		12.00	
Nitrogen	Unit	100	0.26		26.00	
2-4-D	Gal.	0.38	11.88		4.51	
Imazamethabenz	Pnt.	1.5	13.50		20.25	
Water	Share	1.0	6.50		6.50	
Total Purchases	--	--	--		69.26	
		Machine Costs				
OPERATIONS:	Times	Fixed	Variable	Labor		
			Dollars			
Fertilizer Application (Custom)	1	--	--	--	4.00	
Herbicide Application	2	2.56	1.08	0.64	6.00	
Plowing	1	9.21	9.41	2.78	21.40	
Disking	1	4.50	2.91	0.85	8.26	
Cultipacking	1	4.97	3.34	0.99	9.30	
Harrowing	1	1.04	1.36	0.95	3.35	
Planting	1	5.25	4.02	1.62	10.89	
Combining (Custom)	1	--	--	--	23.00	
Hauling (Custom) @ $0.25/Cwt.	1	--	--	--	11.25	
Irrigation	4	1.40	0.29	1.77	9.64	
Storage (6 months) @ $0.03/cwt./month	--	--	--	--	8.10	
Total Operation Costs	--	--	--	--	115.19	
INTEREST ON OPERATING LOAN @ 12% FOR 6 MONTHS					9.33	
TOTAL PURCHASES, OPERATION COSTS & INTEREST					193.79	
RETURN TO LAND & MANAGEMENT					62.21	

Budget prepared by B. Kris Schulthies and DeeVon Bailey.

See page 135 for machinery compliment of winter wheat budget.

CORN SILAGE BUDGET

Estimated Costs and Returns for Corn Silage Production (1990) Box Elder County, Flood Irrigation System, Per Acre Basis.

Item	Unit	Quantity	Price	Total	Your Farm
RECEIPTS:				Dollars	
Yield per Acre	Tons	23	25.00	575.00	
Total Receipts	--	--	--	575.00	
PURCHASES:					
Seed	Lbs.	20	0.95	19.00	
Nitrogen	Unit	110	0.26	28.60	
Phosphate	Unit	60	0.22	13.20	
2-4-D	Gal.	0.19	11.80	2.24	
Parathion (Aerial Application)	--	--	--	6.25	
Water	Share	1	6.50	6.50	
Total Purchases	--	--	--	75.79	

OPERATIONS:	Times	Machine Costs Fixed	Machine Costs Variable	Machine Costs Labor	Total	Your Farm
		Dollars				
Fertilizer Application (Custom)	1	--	--	--	4.00	
Herbicide Application	1	1.28	1.08	0.64	3.00	
Plowing	1	9.21	9.41	2.78	21.40	
Disking	1	4.50	2.91	0.85	8.26	
Triple-K	1	3.67	1.85	0.58	6.10	
Land Plane	1	6.64	2.15	1.24	10.03	
Planting	1	12.92	4.68	1.60	19.20	
Cultivating	2	6.38	2.65	1.60	14.88	
Irrigation	6	1.41	0.29	1.77	13.77	
Harvesting	1	76.32	52.48	19.04	147.84	
Storage @ $0.42/Ton	--	--	--	--	9.66	
Total Operation Costs	--	--	--	--	258.14	
INTEREST ON OPERATION LOAN @ 12% FOR SIX MONTHS					16.70	
TOTAL PURCHASES & OPERATION COSTS & INTEREST					350.63	
RETURN TO LAND & MANAGEMENT					224.37	

Budget prepared by B. Kris Schulthies and DeeVon Bailey.

See page 135 for Machinery Compliment of Corn Silage Budget.

WINTER WHEAT BUDGET
Machinery Compliment,
for Box Elder County, Flood Irrigated, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Spraying	40 ft. 300 Gallon Sprayer	1	2,500	40	6.5
Plowing	5.33 ft. 4 Bottom Switch Plow	2	6,300	100	4.5
Disking	12 ft. Tandem Disk	2	8,500	50	4.5
Cultipacking	15 ft. Cultipacker	2	7,750	50	4.5
Harrowing	15 ft. (Three 5 ft. Sections Drag Harrows)	1	680	50	4.5
Planting	12 ft. Drill	1	8,500	80	4.0

1/ Tractor definitions:
#1 is a 75 hp 2 wheel drive tractor with a replacement cost of $31,000, and an annual usage of 900 hours.
#2 is a 140 hp 4 wheel drive tractor with a replacement cost of $72,500, and an annual usage of 800 hours.

CORN SILAGE BUDGET
Machinery Compliment,
for Box Elder County, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Spraying	40 ft. 300 Gallon Sprayer	1	2,500	40	6.5
Plowing	5.33 ft. 4 Bottom Switch Plow	2	6,300	100	4.5
Disking	16 ft. Tandem Disk	2	8,500	50	4.5
Triple-K	24 ft. Triple-K	2	5,600	25	4.5
Planing	12 ft. X 45 ft. Land Plane	1	12,000	50	4.0
Planting	12 ft. 6 Row Corn Planter	1	13,500	35	4.0
Cultivating	12 ft. 6 Row Cultivator	1	4,000	65	4.1
Harvesting	4 ft, 2 Row Corn Chopper	2	17,000	130	2.8
Harvesting	Dump Wagon	--	10,000	130	2.8
Hauling	2 Ton Truck With Dump Bed	--	40,000	300	--
Piling & Packing ..	63 hp. Tractor With Loader	--	30,000	900	--

1/ Tractor definitions:
#1 is a 75 hp 2 wheel drive tractor with a replacement cost of $31,000, and an annual usage of 900 hours.
#2 is a 140 hp 4 wheel drive tractor with a replacement cost of $72,500, and an annual usage of 800 hours.

BARLEY BUDGET
Estimated Costs and Returns for Barley Production (1990)
Cache County, Wheel Line Pumped Sprinkler Irrigation, Per Acre Basis.

Item	Unit	Quantity	Price		Total	Your Farm
RECEIPTS:					Dollars	
Yield per Acre	Cwt.	38.4	5.00		192.00	
Total Receipts	--	--	--		192.00	
PURCHASES:						
Seed	Lbs.	100	0.1225		12.25	
Nitrogen	Unit	80	0.22		17.60	
2-4-D	Gal.	0.38	11.88		4.48	
Water	Share	0.13	96.00		12.48	
Total Purchases	--	--	--		46.81	
		Machine Costs				
OPERATIONS:	Times	Fixed	Variable	Labor		
			Dollars			
Fertilizer Application (Custom)	1	--	--	--	2.75	
Herbicide Application	2	2.56	1.08	0.64	6.00	
Plowing	1	9.21	9.41	2.78	21.40	
Disking	1	4.50	2.91	0.85	8.26	
Harrowing	1	1.04	1.36	0.95	3.35	
Planting	1	5.25	4.02	1.62	10.89	
Combining (Custom)	1	--	--	--	23.00	
Hauling (Custom) @ $0.18/Cwt.	1	--	--	--	3.84	
Irrigation	2	17.14	5.58	0.95	30.20	
Storage (6 months) @ $0.03/Cwt./month	--	--	--	--	6.91	
Total Operation Costs	--	--	--	--	116.60	
INTEREST ON OPERATION LOAN @ 12% FOR SIX MONTHS					7.42	
TOTAL PURCHASES, OPERATION COSTS & INTEREST					170.84	
RETURN TO LAND & MANAGEMENT					21.16	

Budget prepared by B. Kris Schulthies and DeeVon Bailey.

See page 138 for Machinery Compliment of Barley Budget.

POTATO BUDGET
Estimated Costs and Returns for Potato Production (1990)
Iron County, Center Pivot Sprinkler Irrigation,
Per Acre Basis.

Item	Unit	Quantity	Price	Total	Your Farm
RECEIPTS:				Dollars	
Yield per Acre	Cwt.	306	5.75	1,759.50	
Total Receipts	--	--	--	1,759.50	
PURCHASES:					
Seed	Cwt.	27	15.50	418.50	
Fertilizer:					
Phos/Nit 16-20-0	Unit	368	0.19	69.92	
Folio-nutrents	Pnt.	3	0.94	2.82	
Pesticides:					
Metribuzin	Pnt.	1	13.06	13.06	
EPTC	Pnt.	2	5.58	11.16	
Thimet	Lb.	10	1.19	11.90	
Fungicide	Pnt.	1	4.83	4.83	
Total Purchases	--	--	--	532.19	

OPERATIONS:	Times	Machine Costs Fixed	Variable	Labor	Total	Your Farm
		Dollars				
Ripping	2	4.74	3.13	0.78	12.56	
Plowing	1	5.49	8.67	2.23	16.39	
Offset Disking	1	2.31	0.92	0.65	3.88	
Furrowing	1	2.49	3.94	1.06	7.49	
Planting	1	9.66	4.73	1.18	15.57	
Fertilizing	1	0.54	0.41	0.20	1.15	
Spraying	2	0.82	0.48	0.21	2.20	
Spraying (Aerial) - Custom @ $4.25	3	--	--	--	12.25	
Windrowing	1	16.65	17.92	4.32	38.89	
Digging	1	18.99	18.21	4.32	41.52	
Hauling	1	49.98	147.06	18.00	215.04	
Piling and Grading	1	23.68	0.80	25.20	49.68	
Irrigation 1/	5	63.65	18.54	0.87	160.70	
Storage - @ $0.50/Cwt.	--	--	--	--	170.00	
Total Operation Costs	--	--	--	--	747.32	
INTEREST ON OPERATING LOAN @ 12% FOR 6 MONTHS					64.83	
TOTAL PURCHASES, OPERATION COSTS & INTEREST					1,344.34	
RETURN TO LAND & MANAGEMENT					415.16	

1/ Irrigation costs were calculated assuming a pivot watering 130 acres. An electric motor with a life of 10 years is used, and costs are estimated for a 300 foot well that waters a total of 400 acres. The fixed costs for the well and sprinkling equipment were calculated assuming a 30 year amortization schedule.

Budget prepared by B. Kris Schulthies and DeeVon Bailey, with input from a number of producers.

See page 138 for machinery compliment of potato budget.

BARLEY BUDGET
Machinery Compliment,
for Cache County, Wheel Line Pumped Sprinkler Irrigated, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Spraying	40 ft. 300 Gallon Sprayer	1	2,500	40	6.5
Plowing	5.33 ft. 4 Bottom Switch Plow	2	6,300	100	4.5
Disking	12 ft. Tandem Disk	2	8,000	50	4.5
Harrowing	15 ft. (Three 5 ft. Sections Drag Harrows)	1	680	50	4.5
Planting	12 ft. Drill	1	8,500	80	4.0

1/ Tractor definitions:
#1 is a 75 hp 2 wheel drive tractor with a replacement cost of $31,000, and an annual usage of 900 hours.
#2 is a 140 hp 4 wheel drive tractor with a replacement cost of $72,500, and an annual usage of 800 hours.

POTATO BUDGET
Machinery Compliment,
for Iron County, (1990).

Operation	Implement Type/Width	Tractor 1/	Replacement Cost	Hours Used Annually	Field Speed (mph)
			Dollars		
Ripping	12 ft. Ripper	2	4,500	90	5.5
Plowing	6.67 ft. 5 Bottom Switch Plow	1	6,000	175	4.5
Disking	18 ft. Offset Disk	2	12,500	150	5.7
Furrowing	18 ft. Cultivator	1	3,500	90	3.5
Planting	18 ft. 6 Row Potato Planter	2	33,000	100	3.14
Fertilizing	30 ft. 7,000 lb. Fertilizer Spreader	3	4,500	50	10.0
Spraying	60 ft. 800 Gallon Sprayer	3	6,500	70	6.5
Windrowing	12 ft. 4 Row Windrower	2	34,875	350	1.29
Harvesting	12 ft. 2 Row Harvester	2	42,300	350	1.29
Hauling	1985 10 Wheel Diesel Truck With Potato Bed	--	30,500	350	--
Piling & Grading .	Potato Piler	--	27,900	350	--
	Dirt Eliminator	--	50,000	350	--

1/ Tractor definitions:
#1 is a 175 hp 2 wheel drive tractor with a replacement cost of $63,500, and an annual usage of 1,000 hours.
#2 is a 200 hp 4 wheel drive tractor with a replacement cost of $77,900, and an annual usage of 1,000 hours.
#3 is a 95 hp 4 wheel drive tractor with a replacement cost of $41,000, and an annual usage of 1,000 hours.

MINK BUDGET

Estimated Costs and Returns for Mink Production, (1990), Northern Utah, Black Mink, 1,300 Breeding Females, Total and Per Pelt Basis.

Item	Quantity	Price	Total	Total per Pelt	Your Farm
RECEIPTS:			Dollars		
Pelts	4,550	23.00	104,650.00	23.00	
Fat	2,275	0.03	68.25	0.015	
Total Receipts	--	--	104,718.25	23.015	
VARIABLE COSTS:					
Feed	546,000 Lbs.	0.125	68,250.00	15.00	
Labor:					
Regular Help (Part-Time Worker)	1 Year-Round	--	5,000.00	1.10	
Breeding	336 Man Hours (per Hour)	6.00	2,016.00	0.44	
Vaccination	40 Man Hours (per Hour)	6.00	240.00	0.05	
Separating	40 Man Hours (per Hour)	6.00	240.00	0.05	
Grading	160 Man Hours (per Hour)	6.00	960.00	0.21	
Pelting	240 Man Hours (per Hour)	6.00	1,440.00	0.32	
Pelt Processing	Per Pelt	2.00	9,100.00	2.00	
Manure Handling	160 Man Hours (per Hour)	4.00	640.00	0.14	
Vet Supplies (Vaccination)	Kit	0.22	1,001.00	0.22	
Bedding	Kit	0.22	1,000.00	0.22	
Utilities & Fuel	Month	162.00	1,944.00	0.43	
Replacement Breeding Stock	10 Females	100.00	1,000.00	0.22	
Replacement Breeding Stock	5 Males	250.00	1,250.00	0.27	
Misc. Supplies	Month	100.00	1,200.00	0.26	
Interest on Operating Loan (12%)	6 Months	--	4,095.00	0.90	
Total Variable Costs	--	--	99,376.00	21.84	

	Depreciation	Interest	Insurance			
FIXED COSTS:		Dollars				
Breeding Stock	N/A	10,343	N/A	10,343.00	2.27	
Buildings	4,909	11,046	300	16,255.00	3.57	
Equipment	1,714	1,735	N/A	3,449.00	0.76	
Total Fixed Costs	--	--	--	30,047.00	6.60	
TOTAL COSTS				129,423.00	28.44	
RETURN TO MANAGEMENT				(24,704.75)	(5.43)	

Budget prepared by B. Kris Schulthies, David Patten, and DeeVon Bailey.

HIGH RESIDUE CONSERVATION TILLAGE INCREASES SOIL MOISTURE AND PROFITS

By V.P. Rasmussen and R.L. Newhall, Soil Sci. & Biomet, Utah State University

Erosion Control:
The 1985 Food Security Act, (the current farm bill), requires high-residue (high surface-straw cover) tillage techniques for many USDA Conservation Plans that are mandated by law on HEL (highly erodible land). Landowners and operators must alter many of their traditional tillage practices to remain eligible for USDA programs, insurance, and disaster assistance. These techniques are so new and innovative that is was deemed advisable to include research on them in this publication.

The Soil Science & Biometeorology Department at Utah State University has been conducting tillage research and demonstration plots on several watersheds throughout the State of Utah since 1982. Generous support from the Utah State Department of Agriculture, the Utah Energy Office, the Utah Association of Conservation Districts, the USDA-Soil Conservation Service, and other groups have helped to make this an ongoing, cooperative effort. Without the support of these auxiliary groups, research and educational efforts with conservation tillage and low-input agriculture would be minimal at best, in Utah. However, cooperative efforts such as this, add new dimensions to agricultural production in the State. Several new beneficial cropping systems have been developed from this research, including optimal fertilizer placement techniques, no-till drill development and comparisons, and moisture-saving chemical fallow techniques.

Two 1988 studies at different sites with different soils, (one highly eroded HEL soil, and one moderately-eroded HEL soil), in the Clarkston Watershed have been summarized. The studies focused upon different ways of meeting the tillage requirements of the "Conservation Compliance" provisions of the 1985 Food Security Act. It is often difficult for growers to drastically change their established tillage patterns in order to meet the stringent requirements of farming HEL soils according to the FSA of 1985 regulations. We set out several fallow-year tillage patterns in which we computed and measured erosion, and compared estimated tillage costs for each practice.

Conclusion:
The chemical-fallow (no-till) treatments are better both in conserving soil and increasing profits. However, the cost of applying chemicals was low in 1988 due to the drought that limited weed growth, and necessitated only one chemical treatment. The USU-recommended practice of combining tillage and chemical treatments and the chisel-only system, were both within reasonable limits of cost--but they both accelerated erosion. On steep, highly erodible soils such as these, the chemical fallow treatment is probably the method of choice. However, on slopes that are less than these, chisel plow methods can be used and still meet the FSA-85 requirements. Traditional disk and inversion plow methods are much more costly to the grower, and can seldom meet the FSA-85 requirements. In addition, the measured dryland moisture savings under chemical fallow (1-2 inches per year), offer an additional incentive for growers to change their traditional methods.

NOTE: Refer to the 1990 Utah Agricultural Statistics publication, page 138, for a "Tillage Comparison vs. Soil Loss for Winter Wheat" table; and page 139 for a "Yields for Dryland Winter Wheat by Type of Tillage" table.

CHEMICAL FALLOW

Cost savings and increased producton can result from using chemical fallow practices. The following worksheet was prepared by a major chemical company. It can help you analyze the potential savings on your operation.

NOTE: Only use pesticides when needed and at the rates prescribed on the label. Just because your neighbor is spraying doesn't mean you should. When you spray, you potentially kill friendly insects as well as enemies. Save the cost if spraying isn't necessary. Applying at the recommended rate can also save money and the environment. If you have questions, contact your county agent.

1. SAVE TILLAGE

How many tillage trips do you make for weeds between harvest and planting? How much do tillage trips cost you for each trip?

Sample Cost per Tillage Trip per Acre

Plow	Chisel	V-Blade	Disk	Field Cultivator	Rod Weeder
$9.00	$5.00	$4.50	$5.00	$4.00	$2.50

Trip 1 $_____
Trip 2 $_____
Trip 3 $_____
Trip 4 $_____
Trip 5 $_____
Trip 6 $_____

A chemical fallow application between harvest and planting can replace an average of two to three tillage trips. How many trips can you save? _____

How many dollars per acre can you save by reducing tillage trips with chemical fallow?

(Answer 1) $ _____ per acre

2. SAVE MOISTURE.

University data* show that 1/3 to 1/2" of soil moisture can be lost with each tillage trip.

* 1977 Farm Journal

Number of Tillage Trips Eliminated	Potential Moisture Savings	Potential Yield Increases	
		Fall Wheat	Spring Wheat
		- - - - - Bushels per acre - - - - -	
1	.5"	2.0	3.5
2	1.0"	4.0	7.0
3	1.5"	6.0	10.0

Estimate your potential yield increase: . . . _____ bushels per acre
Multiply by your current price per bushel: $_____ per bushel

Equals potential increase per acre: $ _____ per acre
(Answer 2)

3. SAVE TIME.

Saving time allows you to plant earlier and earlier. Early planting may lead to higher yields.

Sample University Test Plot Yields in Pacific Northwest

Planting Date	Spring Barley	Spring Wheat	Fall Wheat
	Tons per Acre	- - - Bushels per Acre - - -	
April 1-11	2.08	18.0	
After April 26	1.80	11.5	
By October 1			40.9
After October 10			27.4

What is your predicted increase in yield from earlier planting? . . . . . _____ bushels per acre
Multiply by your current price per bushel: $_____ per bushel

Equals potential increase per acre: $ _____ per acre
(Answer 3)

4. SAVE SOIL.

Another benefit of less tillage is reduced erosion. The chart below indicates soil loss due to wind and water.

Estimated Soil Loss in Tons per Acre per Year

	Wind	Water
Black Fallow	13.1	7.4
Stubble Mulch Fallow	3.5	4.6
Chemical Fallow	Trace	Trace

How much is it worth to you per acre to reduce soil erosion?

(Answer 4) $ - per acre

5. HERBICIDE COST (for chemical fallow)

How much does your herbicide cost per gallon? $_____ per gallon
What is your application rate per acre? . . . . . _____ oz. per acre
Rate per acre of _____ oz. times $_____ per gallon divided by 128 (oz. per gallon)
Equals herbicide cost per acre . . . . $_____ per acre
Plus your application cost per acre $_____ per acre

Equals total herbicide cost per acre $ _____ per acre
(Answer 5)

6. CHEMICAL FALLOW PAYOUT

Tillage savings . . . . . (Answer 1) $_____ per acre
Moisture savings . . . . . (Answer 2) $_____ per acre
Time savings . . . . . (Answer 3) $_____ per acre
Soil savings . . . . . (Answer 4) $_____ per acre
Total savings . . . . . $_____ per acre

Minus herbicide cost per acre . . . . . (Answer 5) - $_____ per acre

Equals chemical fallow payout per acre $ _____ per acre

Multiply the above payout per acre by the number of acres on which you could be using this system to figure the total chemical fallow payout for your farm.

UNITED STATES DEPARTMENT OF AGRICULTURE
UTAH AGRICULTURAL STATISTICS SERVICE
POST OFFICE BOX 25007
SALT LAKE CITY, UTAH 84125-0007

OFFICIAL BUSINESS

ADDRESS CORRECTION REQUESTED

BULK RATE
POSTAGE & FEES PAID
U S D A
PERMIT NO. G-38

924R01 49 00000 85-277003300
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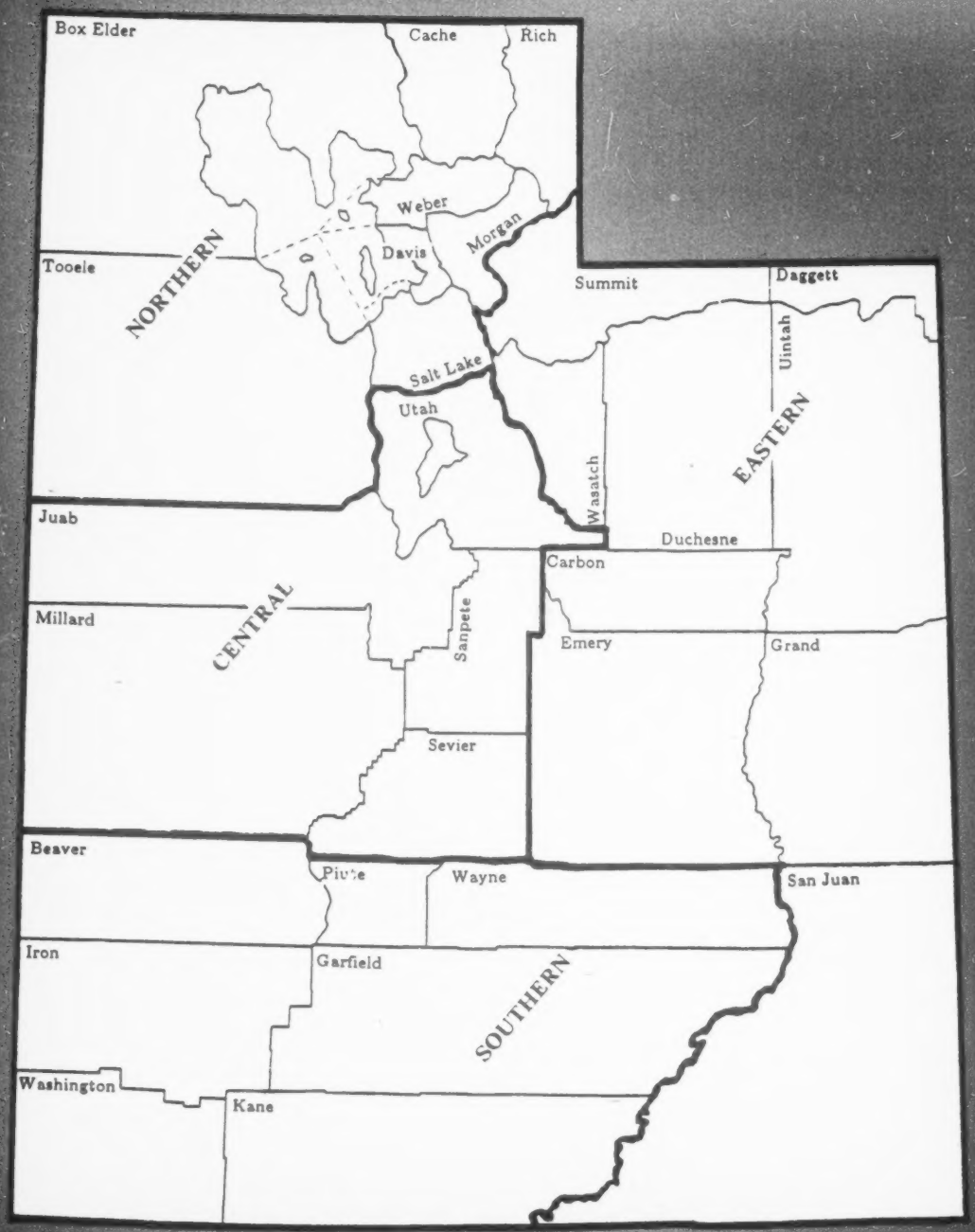
SRI CIS
4520 E-W HWY SUITE 800 *
BETHESDA MD 20814



UTAH COUNTIES AND DISTRICTS